PART - II

Pool of Multi-Disciplinary, Skill Enhancement, Value-Added & Ability Enhancement Courses

Part - II

ज्ञान-विज्ञान विमुक्तये
UGC

UNIVERSITY GRANTS COMMISSION

BAHADUR SHAH ZAFAR MARG

NEW DELHI – 110002

KEY INFORMATION

The **Learning Outcomes-based Curriculum Framework (LOCF)** for **Sanskrit and Multidisciplinary programs** is structured as follows:

1. ***Introduction***
2. ***Part – I (B.A. Hons. Sanskrit and Linguistics, Sanskrit and Defence Studies etc.)***
3. ***Part – II (Other Courses like MDs, SECs, VACs, AECs etc.)***

The ***Part - I*** comprise the **Major** and **Minor Courses** specifically aligned with the core discipline for which the LOCF is designed and presented program wise above.

The ***Part - II*** represented in the present document includes the following components:

- **Multi-Disciplinary Courses - MD**
- **Skill Enhancement Courses - SEC**
- **Value-Added Courses - VAC**
- **Ability Enhancement Courses - AEC**

It is important to note that the **numerical identifiers** used in course codes such as **MD, SEC, VAC** and **AEC** represent the **serial order** of the courses and do **not** indicate their **level of difficulty**.

In addition to the Multi-Disciplinary Courses listed in this framework, relevant courses from the following disciplines whose LOCFs have already been notified/will be notified by the UGC may also be adopted as Multi-Disciplinary Courses. ***Particularly the Sanskrit Multidisciplinary Courses may be adapted.***

1. Sanskrit
2. Commerce
3. Political Science
4. Geography
5. Anthropology
6. Chemistry
7. Economics
8. Home Science
9. Mathematics
10. Physical Education
11. Management
12. Law
13. Linguistics
14. Mass Communication
15. History
16. Archeology
17. Defense Studies
18. Physics
19. Public administration
20. Sociology
21. Psychology
22. Philosophy

****Note:** *The Syllabus of each course in MDs, SECs, VACs and AECs* ***is presented in a broad format (Lengthy in Nature),*** *providing universities the* ***flexibility*** *to select and adopt units according to their specific requirements. Nevertheless, the cumulative credits must adhere to the prescribed course Credit Framework.*

List of the Courses given by different Committees

S. No.	Course Codes	Prepared Committee
1	MD 1-8	BA Hons. Sanskrit and Defense Studies
2	MD 9-10	BA Hons. Sanskrit and Travel and Tourism
3	SEC 1-10	BA Hons. Sanskrit and Defense Studies
4	SEC 11-24	BA Hons. Sanskrit and Travel and Tourism
5	SEC 25-42	BA Hons. Sanskrit and Ayurveda
6	VAC 1-10	BA Hons. Sanskrit and Defense Studies
7	VAC 11-20	Central Sanskrit University, New Delhi
8	AEC 1-10	BA Hons. Sanskrit and Defense Studies

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Multidisciplinary Courses

The National Education Policy (NEP) 2020 envisions a transformative approach to higher education in India by fostering multidisciplinary and holistic learning. In this vision, undergraduate education is no longer confined to narrow specializations but is reimagined to cultivate a broad, integrated understanding of knowledge across diverse fields. This is achieved through the development of multidisciplinary undergraduate programmes, which combine the arts, sciences, social sciences, languages and vocational subjects in a flexible curriculum.

Multidisciplinary courses foster holistic development, adaptability, creativity, ethical awareness and lifelong learning skills. They prepare students not just for employment but for meaningful and fulfilling lives as engaged, responsible global citizens.

Multidisciplinary Courses are the pool of courses which is meant to provide multidisciplinary or interdisciplinary education to students. GEs shall consist of a pool of courses offered by various disciplines of study (excluding the GEs offered by the parent discipline), in groups of odd and even semesters, from which a student can choose.

Key Principles

- Holistic Development: NEP 2020 emphasizes the development of all capacities – intellectual, social, ethical, emotional and physical – by enabling students to explore a broad spectrum of disciplines.
- Flexibility and Choice: Multidisciplinary courses allow students to customize their learning journeys, choosing courses from different domains, thus breaking the silos of traditional disciplines.
- Integration with Vocational and Professional Learning: The National Higher Education Qualifications Framework (NHEQF) integrates vocational and technical education with general higher education, enabling students to acquire skills relevant to emerging work contexts.
- Research and Innovation: NEP promotes critical thinking, creativity and problem-solving by encouraging students to engage in research and cross-disciplinary projects.
- Lifelong Learning and Employability: By broadening the academic horizon, multidisciplinary courses prepare students with 21st-century skills, including adaptability, collaboration and an ethical mindset.

NEP 2020 Highlights Multidisciplinary Approach

Establishment of large multidisciplinary universities and colleges, offering flexible curricula and multiple entry/exit options.

- Emphasis on cross-disciplinary and interdisciplinary learning—even professional and technical institutions are encouraged to integrate arts, humanities and social sciences.
- Integration of value-based education, environmental sustainability and global citizenship education within curricula.
- Multiple pathways of learning including direct, distance, online and hybrid/blended modes ensuring inclusivity and lifelong learning.

Core Benefits for Students

- Breadth and Depth: Gain knowledge and skills across multiple disciplines, while pursuing depth in one or more fields of interest.
- Enhanced Employability: Broader skill sets and interdisciplinary thinking prepare students for dynamic, real-world challenges.
- Innovative Learning: Exposure to varied fields fosters creative problem-solving and research capabilities.
- Ethical and Social Awareness: Courses integrate humanistic and constitutional values, preparing students for active citizenship and leadership roles.

The Sanskrit LOCF combines multi-disciplinary in a naval way. It includes the various disciplines from general stream of education and Sanskrit stream of education by cutting the disciplinary limits.

Proposed Assessment Pattern for Multi-Disciplinary Courses

Assessment Component	Weightage	Purpose / Focus
Theory (60%) Mid/End-Semester Test (Written)		
MCQs	10%	Foundational knowledge of Multidisciplinary topics.
Writing answers in one sentence.	10%	Integration of Multidisciplinary learnings.
Short answer questions.	15%	Application of concepts, connection to real-life contexts
Long answer questions.	25%	Critical thinking

Practical (40%)		
Project work/ Presentations/ Practical assignments.	20%	Practical application of learnt topics and experiential learning.
Group discussions/ Collaborative projects/ Participation in workshops.	10%	Communication and articulation of taught ideas.
Producing videos based on the topic of the text. / Participation in the Sastra Sanjeevani programme. / Presentation of the topic in the Vagvardhini Parishad.	10%	Active participation to enhance the knowledge received and the application of the same.

Skill Enhancement Courses:

The National Education Policy (NEP) 2020 and the National Higher Education Qualifications Framework (NHEQF) emphasize the integration of skill development into undergraduate (UG) education to prepare students for employability, entrepreneurship and lifelong learning. The NEP envisions Skill Enhancement Courses (SECs) as essential, credit-based components of UG programmes that equip students with practical competencies, digital literacy, critical thinking, problem-solving abilities and ethical reasoning.

***Skill Enhancement Course (SEC) as per Credit Framework*:** SEC-s are skill-based courses in all disciplines and are aimed at providing hands-on training, competencies, proficiency and skills to students.

Key Features:

- Bridging Theory and Practice: SECs aim to combine disciplinary knowledge with hands-on, experiential learning.
- Flexibility and Choice: NEP 2020 promotes student choice and curricular flexibility, enabling them to pursue SECs tailored to emerging fields (e.g., AI, AR/VR, data analytics, environmental sustainability).
- Employability and Entrepreneurship: SECs are designed to equip students with job-ready skills and nurture an entrepreneurial mindset through project work, internships and community engagement.
- Multiple Entry-Exit Pathways: Consistent with the NHEQF, SECs provide certifications at exit points (e.g., Undergraduate Certificate after Year 1, Diploma after Year 2), ensuring skill validation and progression flexibility.
- Alignment with National Skills Qualifications Framework (NSQF): SECs are harmonized with the NSQF levels, ensuring national recognition and portability of skills qualifications.

These courses encourage students to explore cross-disciplinary skills, breaking down silos between humanities, sciences and vocational education.

Core Objectives

1. Enhance Employability: Prepare students with skills and knowledge relevant to the dynamic demands of the workforce.
2. Foster Lifelong Learning: Cultivate a mindset for continuous personal and professional growth.
3. Integrate Values and Ethics: Embed humanistic, ethical and constitutional values into skill development.
4. Promote Innovation and Creativity: Encourage problem-solving, critical thinking and digital proficiency.

Positioning of Skill Enhancement Courses (SECs)

Under the NEP 2020 and NHEQF, SECs form a mandatory, flexible and integral component of UG programmes, contributing to:

- Vocationalization of education, ensuring that all graduates are prepared for employment or entrepreneurship.
- Integration with community engagement, aligning skills with real-world societal needs.
- Recognition through academic credits, facilitating transitions to higher levels of education or direct employment.

Proposed Assessment Pattern for Skill Enhancing Courses

Assessment Component	Weightage	Purpose / Skill Focus
Theory: 40% Weightage		
Mid-Semester Test (Written)	15%	Foundational concepts, understanding of theoretical principles
End-Semester Test (Written)	25%	In-depth comprehension, critical analysis, application of theory to practical contexts
Key Deliverables:		Short/long answer questions - Case study analysis - Reflection on skills integrated with theory

Practical: 60% Weightage		
Assessment Component	**Weightage**	**Purpose / Skill Focus**
Project Work / Capstone Project	25%	Real-world application, project planning, problem-solving
Practical Assignments / Exercises	20%	Skill application through practical tasks, tool usage, technical demonstrations
Viva-Voce / Presentation	15%	Oral communication, demonstration of skills and understanding of practical work
Key Deliverables:		Prototype/model design - Software/tool-based tasks - Presentations or demonstrations - Portfolio submission (if applicable)

Highlights of the Pattern:

- Ensures balance between theory and practice.
- Promotes hands-on skill development while grounding it in conceptual understanding.
- Suitable for Skill Enhancement Courses in domains like AI, AR/VR, Design, Computational Systems, Digital Humanities, etc.

Value-Added Courses

The National Education Policy (NEP) 2020 envisions a holistic, multidisciplinary education system that integrates value-based learning and life skills into the core framework of higher education. Value-Added Courses (VACs) at the undergraduate level are designed to complement disciplinary learning with essential humanistic, ethical, cultural, environmental and employability skills, thus fostering well-rounded, socially responsible and globally aware graduates.

Key Features:

- Integration of Human Values and Ethics: NEP 2020 emphasizes the development of constitutional, humanistic, ethical and moral values, encouraging students to embrace truth, righteousness, peace, love, non-violence and global citizenship. VACs cultivate these principles through experiential learning.
- Flexibility and Interdisciplinarity: VACs provide students across disciplines with opportunities to pursue courses in environmental sustainability, cultural heritage, wellness, ethics, communication and community engagement.
- Holistic Development: These courses nurture cognitive, emotional, social and moral dimensions, enabling students to contribute constructively to society.
- Skill Enhancement and Employability: VACs equip students with 21st-century competencies such as communication, collaboration, critical thinking, problem-solving and digital literacy.
- Alignment with NHEQF and NSQF: VACs correspond to the learning outcomes, graduate attributes and skill levels outlined in the NHEQF and NSQF frameworks, ensuring national recognition and credit accumulation.

Value Addition Course (VAC) as per Credit Framework: VAC-s are common pool of courses offered by different disciplines and aimed towards personality building; embedding ethical, cultural values; promote critical thinking, Indian Knowledge Systems, scientific temperament, communication skills, creative writing, presentation skills and Physical education (Yoga) which will help in holistic development of students.

NEP 2020 Vision

NEP 2020 underscores that "all HEIs shall include credit-based courses and projects in areas of community engagement, environmental education, and value-based education". In line with NEP 2020, VACs at the UG level aim to:

- *"Enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to society."*
- *"Prepare students for meaningful, satisfying lives and work roles, and enable economic independence."*

Core Objectives of Value-Added Courses

1. To instill **ethical reasoning and constitutional values** in students.
2. To foster **environmental stewardship and sustainability awareness**.
3. To cultivate **soft skills** like communication, critical thinking, creativity and teamwork.
4. To integrate **community engagement and service-learning** into the curriculum.
5. To prepare students for **meaningful participation in society** and **global citizenship**.

Examples of Value-Added Course Themes

- Environmental Sustainability and Climate Action
- Yoga, Meditation and Wellness
- Ethics, Human Values and Indian Knowledge Systems
- Digital Literacy and Cybersecurity Awareness
- Gender Sensitization and Social Inclusion
- Communication Skills for Professional and Personal Growth
- Cultural Heritage, Art and Aesthetics
- Community Service and Civic Engagement

Proposed Assessment Pattern for Value-Added Courses

Assessment Component	Weightage	Purpose / Focus
Theory (60%)		
Mid/End-Semester Test (Written/MCQ)	25%	Foundational knowledge of value-added topics
Reflection Essays / Case Studies	20%	Critical thinking, integration of value-based learnings
Short Assignments / Open-book Tasks	15%	Application of concepts, connection to real-life contexts

Practical (40%)		
Project / Fieldwork Report	20%	Practical application of learnt values and experiential learning
Presentations / Demonstrations	10%	Communication and articulation of taught ideas and values
Mentor/Peer/Self-assessment & Reflection	10%	Mentor Feedback/ Peer feedback about the behavioral insights. Self-awareness about the behavioral insights.

Ways to assess Values

Assessment of Sought after Modifications in Pupils	Assessment Strategies
1. Behavioural Changes	Pre and Post-course self-assessment questionnaires focused on specific behaviors (e.g., collaboration, respect, responsibility)
	Reflective journals or logs documenting experiences and behavioral shifts
	Peer evaluation and group activity observations during projects or discussions
	Instructor observation rubrics during activities assessing participation, cooperation and leadership
2. Attitudinal Changes	Attitude surveys (Likert scale) measuring shifts in outlook (e.g., inclusivity, environmental consciousness, ethics)
	Case study analysis requiring students to express opinions and decisions with ethical reasoning
	Group discussions and role-plays to observe attitudinal responses in diverse scenarios
	Personal growth statements submitted post-course summarizing changes
	Attitude surveys (Likert scale) measuring shifts in outlook (e.g., inclusivity, environmental consciousness, ethics)
3. Quality Enhancement	Rubrics for evaluating the quality of submissions (projects, presentations) focusing on depth, clarity, creativity
	Progress tracking—comparing initial work with final outcomes to assess learning growth
	Viva voce to evaluate comprehension, articulation and integration of values into practical outputs
	Community engagement projects with impact reports assessing contribution quality

Key Features Aligned with NEP 2020 and Value-Added Learning

- **Holistic assessment** (intellectual, behavioral and practical skills)
- **Student-centric methods** (reflection, peer/self-assessment)
- **Competency-driven**—focused on knowledge, skills and values development.
- **Flexible for diverse Value-Added Courses** (e.g., Ethics, Environmental Awareness, Cultural Heritage, Yoga, Digital Literacy)

Ability Enhancement Courses

Ability Enhancement Courses (AECs) form an integral component of undergraduate programmes under the **Learning Outcomes-based Curriculum Framework (LOCF)**. As envisioned in the **National Education Policy (NEP) 2020**, higher education is not limited to subject specialization but is equally directed towards nurturing **21st-century competencies** that ensure holistic development. AECs are therefore designed to strengthen the **core abilities** of students in language, communication, reasoning, and cultural competence, which serve as the foundation for advanced learning, employability, and global citizenship.

AECs primarily focus on **language proficiency and communication skills** in both Indian and foreign languages (e.g., Sanskrit, English, French, Mandarin, Russian), thereby promoting multilingualism in line with the **three-language policy**. They emphasize **clarity of expression, critical reading, analytical writing, translation, and effective oral communication**, all of which are crucial for academic success, professional growth, and civic engagement.

In addition, these courses aim to integrate **ethical reasoning, cultural awareness, and Indian Knowledge Systems (IKS)** within communicative practices. By fostering intercultural understanding and linguistic versatility, AECs prepare students to **navigate diverse socio-cultural contexts**, strengthen their employability, and enhance their participation in global knowledge economies.

Core Objectives of AECs

- **Foundational Competence**: Strengthens essential academic abilities such as reading, writing, speaking, listening, reasoning, and presentation.
- **Multilingual and Intercultural Readiness**: Promotes Sanskrit and other Indian as well as foreign languages, enabling students to engage across cultures and global platforms.
- **Integration of Values**: Embeds constitutional, ethical, and humanistic values within communicative practices, aligning language skills with responsible citizenship.
- **Employability and Lifelong Learning**: Equips students with transferable skills—communication, collaboration, adaptability, and cultural literacy—relevant to professional and personal contexts.
- **Holistic Personality Development**: Enhances self-confidence, creativity, articulation, empathy, and interpersonal effectiveness, thus contributing to overall personality growth.
- **Alignment with NHEQF**: Directly contributes to graduate attributes such as effective communication, problem-solving ability, ethical reasoning, and cross-cultural competence.

AECs therefore act as **bridges between disciplinary learning and real-world application**, ensuring that all graduates, irrespective of their chosen field, emerge with the ability to **communicate effectively, think critically, and participate meaningfully in society**.

Proposed Assessment Pattern for Ability Enhancement Courses (AECs)

Assessment Component	Weightage	Purpose / Skill Focus	Key Deliverables
Theory (40%)			
Mid-Semester Test (Written / MCQ)	15%	Test of foundational knowledge of language/ communication concepts	Short answers, grammar/usage exercises, comprehension
End-Semester Test (Written)	25%	Application of language/ communication skills to practical and cultural contexts	Essays, translations, case-based questions
Practical (60%)			
Conversational / Oral Practice	20%	Oral fluency, pronunciation, dialogue delivery, group discussion	Role plays, debates, recitation
Assignments / Practice Exercises	15%	Applied skills in writing, translation, creative expression	Paragraph writing, report writing, creative dialogues
Viva-Voce / Presentation	15%	Oral communication, confidence, cultural articulation	Presentations, storytelling, extempore speech
Portfolio / Project Work	10%	Integration of learning with cultural/ethical values	Recorded conversations, verse recitation, project-based tasks

Highlights of the Pattern

- Balances **language theory** with **practical communication skills**.
- Encourages **oral proficiency, critical thinking, and cultural engagement**.
- Flexible enough to adapt across **Sanskrit, English, and foreign language AECs**.
- Supports **NEP 2020 vision** of multilingualism, employability, and holistic development.

POOL OF MULTIDISPLINARY COURSES

Credits - 3
Hours - 45

MD 1: Statecraft and Public Administration (Kacchitsarga)

Course Objectives:

1. To study the Nārada–Yudhiṣṭhira dialogue in the Mahābhārata in detail.
2. To examine classical Indian principles of governance, security and public administration presented in the dialogue.
3. To analyze these principles through the lens of Sanskrit textual tradition.
4. To relate and apply these insights to contemporary defence and administrative paradigms.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify key elements of ethical governance and ideal leadership from the Nārada–Yudhiṣṭhira dialogue.
2. Explain administrative protocols and ministerial responsibilities within a dhārmic framework.
3. Evaluate the principles of internal and external security from the classical Indian viewpoint.
4. Apply Sanskrit textual analysis to interpret political and administrative doctrines.
5. Relate ancient principles of statecraft to current defence and civil governance challenges.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 1	Statecraft and Public Administration (Kacchitsarga)	03	0	0	03

Details of Course:

Unit I संवादस्य परिचयः (Introduction to the Dialogue and Literary Context) Credit 1

- Setting: Khaṇḍavaprastha, division of the kingdom.
- Introduction to Nārada as rājāśāstra-vettā.
- Importance of “kacchit” as interrogative inquiry.
- Philosophical tone and aim of the dialogue.

Unit II नीतिशास्त्रे राज्ञः व्यक्तित्वम् (The King's Ethics and Self-Governance) Credit 0.5

- Analysis of Nārada's questions about personal discipline, control of senses, truthfulness.
- Values of kṣamā, tapaḥ and vinaya.
    - Connection between inner ethics and external governance.

Unit III मन्त्रिपरिषद् व शासनव्यवस्था। Credit 0.5

- Advisory council: trustworthiness, secrecy and roles of mantri, purohita, senāpati.
- Decision-making, transparency and risk assessment.

- Principles of internal security: intelligence systems, city and palace defence, vigilance against treachery.
- Daṇḍanīti: role of daṇḍa in ensuring order.

Unit IV प्रजाहितं, धर्मसंरक्षणं च। Credit 1

- Public welfare and dharmic governance.
- Food security, justice and protection of subjects.
- Ritual and moral legitimacy through yajña, dāna.
- Relevance to modern governance and student reflections.

Essential/Recommended Readings/Texts:

1. Sukthankar, V. S., Belvalkar, S. K., Kane, P. V., et al. (Eds.). (1933–1966). *The Mahābhārata: For the first time critically edited* (19 vols.; see Ādi Parva, Chapter 70). Pune: Bhandarkar Oriental Research Institute.
2. Dandekar, R. N. (1958). *Some aspects of state and society in the Mahābhārata*. Pune: University of Poona.
3. Kane, P. V. (1973). *History of Dharmaśāstra* (Vol. 3). Pune: Bhandarkar Oriental Research Institute.
4. Debroy, B. (2010). *The Mahabharata* (Vol. 1). New Delhi: Penguin Classics.

Additional Readings:

1. Jolly, J. (1889). *The minor law-books* (F. Max Müller, Trans.; Vol. 33, *Sacred Books of the East*). Oxford: Clarendon Press.
2. Jayaswal, K. P. (1996). *Hindu polity: A constitutional history of India in Hindu times* (Reprint ed.). New Delhi: Oriental Books Reprint Corporation. (Original work published 1924)
3. Kangle, R. P. (1960). *The Kauṭilīya Arthaśāstra, Part II: An English translation with critical and explanatory notes*. Bombay: University of Bombay.
4. Matilal, B. K. (1990). *The word and the world: India's contribution to the study of language*. New Delhi: Oxford University Press.
5. Das, G. (2009). *The difficulty of being good: On the subtle art of Dharma*. New Delhi: Penguin.
6. Olivelle, P. (2013). *King, governance and law in ancient India: Kauṭilya's Arthaśāstra*. New Delhi: Oxford University Press.
7. Sihag, B. S. (2014). *Kautilya: The true founder of economics*. London: Routledge.

Credits - 3
Hours - 45

MD 2: Realpolitik: Ideas of Kaṇika

Course Objectives:

1. To understand the principles of Realpolitik in ancient Indian thought through Kaṇika Nīti.
2. To critically examine political strategies: persuasion, incentives, division and punishment (Sāma, Dāna, Bheda, Daṇḍa).
3. To practice Pārāyaṇa (devotional recitation) of selected ślokas.
4. To perform grammatical and syntactic analysis of key verses.
5. To apply Kaṇika's ideas to contemporary political and leadership contexts.

Learning Outcomes:

After the completion of the course, the students will:

1. Be able to accurately recite, translate and grammatically analyze key verses from the 5th chapter of Sabhā Parva (Kaṇika Nīti).
2. Describe Kaṇika's political philosophy, especially the principles of Sāma, Dāna, Bheda and Daṇḍa and their relevance to realpolitik.
3. Critically assess the ethical and pragmatic dimensions of Kaṇika's strategies and apply them to contemporary governance, leadership and diplomacy.
4. Compare Kaṇika Nīti with other classical political thinkers such as Kauṭilya and Machiavelli, situating Indian political thought in a global context.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 2	Realpolitik: Ideas of Kaṇika	03	0	0	03

Details of Course:

Unit I Context and Foundations. **Credit 1**

- Mahābhārata and Sabhā Parva overview.
- Introduction to Kaṇika and Dhṛtarāṣṭra.
- Historical and political background.
- Basic assumptions of human nature in politics.
- Pārāyaṇa: Recitation of the opening verses introducing Kaṇika's appearance in the court.
- Grammatical Focus: Sandhi breakdowns in opening ślokas (e.g., proper joining of names and epithets).

Unit II Kaṇika's Political Philosophy. **Credit 0.5**

- Detailed reading of Kaṇika's key arguments to Dhṛtarāṣṭra.
- Realpolitik and dharma tensions.

- Analysis of Kaṇika's view of enemies and allies.
- Pārāyaṇa: Selected ślokas explaining Kaṇika's "rules for rulers" (e.g., how to recognize threats).
- Grammatical Focus: Samāsa (compound words) in political terminologies (e.g., rājanīti, mitrāmitra).

Unit III Allegory of the Fox and the Four Upāyas. Credit 0.5

- Story of the cunning fox/jackal.
- Deep-dive into Sāma, Dāna, Bheda, Daṇḍa.
- Comparative study of strategic applications.
- Pārāyaṇa: Ślokas narrating the story of the jackal and the clever strategies it uses.
- Grammatical Focus: Parsing narrative verbs and subordinate clauses used in storytelling (past tense usage, participles).

Unit IV Practical Strategies and Governance. Credit 0.5

- Tactics to manage ministers, spies, enemies.
- Importance of patience, foresight and timing.
- Pārāyaṇa: Ślokas where Kaṇika advises patience, hypocrisy and layered strategy.
- Grammatical Focus: Kāraka (syntactic role) analysis for agent (kartā) and instrument (karaṇa) emphasis in commands and advice.

Unit V Ethics, Realism and Modern Reflections. Credit 0.5

- Contrast Kaṇika's realism with traditional dharmic conceptions.
- Debate: Is Kaṇika's counsel immoral or pragmatic?
- Study of ślokas advocating duplicity, harsh punishments and strategic deception.
- Comparative insights: echoes in Kauṭilya and Machiavelli.
- Applications to modern politics, diplomacy and management.
- Student reflections through essays, debates and full-section translation practice.

Essential/Recommended Readings/Texts:

1. Ganguli, K. M., trans. *The Mahabharata of Krishna-Dwaipayana Vyasa*. Vol. 2: *Sabha Parva*. Calcutta: P.C. Roy, 1883–1896. (For primary source reading of Kaṇika Nīti in English translation)
2. Bhattacharya, S., ed. *Mahābhārata: Critical Edition*. Vol. 2: *Sabha Parva*. Pune: Bhandarkar Oriental Research Institute, 2009. (For Sanskrit critical edition and textual analysis)

Additional Readings:

1. Machiavelli, N. (2008). *The Prince* (Q. Skinner & R. Price, Trans.). Cambridge: Cambridge University Press. (Original work published 1513)
2. Hobbes, T. (2012). *Leviathan* (N. Malcolm, Ed.). Oxford: Oxford University Press. (Original work published 1651)
3. Weber, M. (2004). *Politics as a vocation* (D. Owen & T. B. Strong, Eds.). Hackett Publishing. (Original work published 1919)

4. Thapar, R. (1984). *From lineage to state: Social formations in the mid-first millennium BC in the Ganga Valley*. Oxford: Oxford University Press.
5. Matilal, B. K. (2002). *Ethics and epics: Philosophy, culture and religion*. Oxford: Oxford University Press.
6. Bandyopadhyay, S., & Chakrabarti, A. (Eds.). (2009). *Mahābhārata: The epic and the nation*. Routledge.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in workshops.
2. Writing assignments.
3. Producing videos based on the topic of the text.
4. Poster Presentation.
5. Presentation of the topic in the Vagvardhini Parishad.

Credits - 3
Hours - 45

MD 3: International Relations

Course Objectives:

1. To introduce students to the basic concepts, scope and historical evolution of International Relations (IR).
2. To examine major theoretical approaches—classical, scientific and contemporary shaping the study of IR.
3. To provide an understanding of foreign policy and diplomacy as instruments of statecraft.
4. To critically analyse the concept of national interest, security dilemmas and strategies employed by states in the international system.
5. To equip students with the ability to apply theories to real-world cases and critically evaluate global politics in a changing world order.

Learning Outcomes:

After the completion of the course, the students will:

1. Define and explain the scope and evolution of International Relations.
2. Demonstrate an understanding of key theoretical traditions such as Realism, Liberalism/Idealism, the Neo-Neo Debate and Constructivism.
3. Apply scientific approaches such as Systems Theory, Game Theory and Decision-Making frameworks to explain interstate relations.
4. Identify and evaluate the determinants of foreign policy and types of diplomacy, with particular reference to India's foreign policy and non-alignment.
5. Critically assess the concept of national interest and the instruments used by states to safeguard it.
6. Develop independent analytical skills for understanding war, peace, alliances and collective security arrangements in the international system.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 3	International Relations	03	0	0	03

Details of Course:

Unit I Introduction to International Relations. **Credit 0.5**

- Meaning, Nature and Scope.
- Historical Evolution.
- Meaning of Theory.
- Concept of International Politics and International Relations.

Unit II Classical Approach to International Relations. **Credit 1**

- Idealism.
- Realism.

- Neo-Neo Debate.
- Constructivism.

Unit III Scientific Approach to International Relations. **Credit 0.5**

- Morton Kaplan's Systems Theory.
- Decision Making Approach.
- Game Theory.

Unit IV Foreign Policy and Diplomacy. **Credit 0.5**

- Meaning and Definitions.
- Determinants of Foreign Policy.
- Types of Diplomacy.
- Non-Alignment in Indian Foreign Policy.
- Collective Security.

Unit V National Interest. **Credit 0.5**

- Concept and Definition.
- Vital and Non-Vital Components.
- Instruments to Secure National Interest.

Essential/Recommended Readings/Texts:

1. Carr, E. H. (1939). *The twenty years' crisis, 1919–1939*. Macmillan.
2. Palmer, N. D., & Perkins, H. C. (1969). *International relations: The world community in transition* (3rd ed.). Houghton Mifflin.
3. Waltz, K. (1979). *Theory of international politics*. New York: McGraw-Hill.
4. Morgenthau, H. J. (1985). *Politics among nations: The struggle for power and peace*. Kalyani Publishers.
5. Art, R. J., & Jervis, R. (Eds.). (2006). *International politics: Enduring concepts and contemporary issues* (8th ed.). Pearson.
6. Pevehouse, J. C. W., & Goldstein, J. S. (2017). *International relations* (11th ed.). Pearson.

Additional Readings:

1. Sprout, H., & Sprout, M. (1962). *Foundations of international politics*. Princeton University Press.
2. Burton, J. W. (1965). *International relations: A general theory*. Cambridge University Press.
3. Coplin, W. D. (1971). *Introduction to international politics: A theoretical overview*. Markham Publishing Company.
4. Frankel, J. (1973). *Contemporary international theory and the behaviour of states*. Oxford University Press.
5. Wright, Q. (1980). *A study of international relations*. Irvington Publishers.
6. Nye, J. S. (2013). *Understanding international conflicts: An introduction to theory and history*. Pearson.

7. Burchill, S., et al. (2013). *Theories of international relations* (5th ed.). Palgrave Macmillan.
8. Dunne, T., Kurki, M., & Smith, S. (Eds.). (2016). *International relations theories: Discipline and diversity* (4th ed.). Oxford University Press.
9. Ghai, U. R. (2018). *International politics: Theory and practice*. New Academic Publishing Co.
10. Baylis, J., Owens, P., & Smith, S. (Eds.). (2019). *The globalization of world politics: An introduction to international relations* (8th ed.). Oxford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in workshops/seminars on international relations, diplomacy, or security studies.
2. Writing assignments/essays on specific IR theories (e.g., Realism vs. Liberalism) or case studies (e.g., Cuban Missile Crisis, India-China border dispute).
3. Producing short video or infographic projects explaining concepts such as the balance of power, collective security, or national interest.
4. Simulation exercises/role plays (e.g., Model United Nations, crisis diplomacy, peace negotiations).
5. Presentation of a case study (e.g., India's non-alignment policy, the Cold War balance of power, or NATO interventions).
6. Book/article reviews (e.g., review of Morgenthau's Politics Among Nations or Waltz's Theory of International Politics).
7. Debates on contemporary issues (e.g., "Is unipolarity sustainable?" / "Does non-alignment remain relevant in Indian foreign policy?").

Credits - 3
Hours - 45

MD 4. Basics of Hindu Studies

Course Objectives:

1. To facilitate exploration of the rich traditions, beliefs, practices and philosophies of Hinduism.
2. To provide a comprehensive understanding of Hinduism, including its original doctrines.
3. To explore the historical, cultural, philosophical and social dimensions of Hinduism.
4. To examine both theoretical and practical aspects of Hindu scriptures, rituals, festivals and ethical principles.
5. To develop an understanding of the authenticity and relevance of the philosophical, scientific and utilitarian aspects of Hindu traditions for leading a happy and contented life in the contemporary world.

Learning Outcomes:

After the completion of the course, the students will:

1. Develop a comprehensive understanding of the origins, historical development and diversity within Hinduism.
2. Examine the major philosophical schools and concepts within Hinduism, such as Vedanta, Yoga and Bhakti.
3. Explore the scriptures, including the Vedas, Upanishads, Bhagavad Gita and Puranas and their significance in Hinduism.
4. Investigate the practices, rituals and symbolism associated with Hindu worship and daily life.
5. Analyze the social, cultural and ethical dimensions of Hinduism and their impact on individuals and communities.
6. Foster critical thinking, research skills and the ability to engage in respectful dialogue about Hinduism.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 4	Basics of Hindu Studies	03	0	0	03

Details of Course:

Unit I Introduction to Hinduism. **Credit 0.5**

- Introduction to key terms and concepts in Hinduism.
- Historical background and cultural context of Hinduism.
- Sacred Scriptures of Hinduism.
- Vedas and their significance in Hinduism.
- Introduction to the Upanishads and their philosophical teachings.
- Examination of the Bhagavad Gita and its role in Hindu thought.

Unit II Hindu Philosophical Systems. **Credit 1**

- Overview of the major philosophical schools in Hinduism.
- Analysis of key concepts, including Atman, Brahman, Karma and Moksha.
- **Hindu Deities and Mythology.**
  - Exploration of the major deities in Hinduism, including Brahma, Vishnu, Shiva, Devi and their manifestations.

Unit III Hindu Rituals and Worship. **Credit 0.5**

- Study of Hindu rituals and their role in religious and social life.
- Examination of major Hindu festivals and their significance.
- Exploration of sacred spaces, temples and pilgrimage in Hinduism.

Ethics and Morality in Hinduism.

- Analysis of Hindu ethical principles- dharma and karma.
- Discussion on the concept of moral responsibility and the pursuit of righteousness in Hinduism.

Unit IV Contemporary Issues and Hinduism. **Credit 1**

- Exploration of the challenges and adaptations of Hinduism in the modern world.
- Analysis of Hindu nationalism, secularism and religious pluralism.
- Reflection on the relevance of Hindu teachings and practices in addressing global challenges.

Essential/Recommended Readings/Texts:

1. Müller, F. M. (Ed.). (1879). *Sacred books of the East*. Oxford: Clarendon Press.
2. Sastri, A. M. (Trans.). (1901). *The Bhagavad-Gita (With the commentary of Sri Sankaracarya)* (2nd ed.). Mysore: The G.T.A. Printing Works.
3. Bhagavadgita (with translation and commentary in Hindi). (n.d.). Gorakhpur: Gita Press.
4. Radhakrishnan, S., & Moore, C. A. (Eds.). (1992). *A sourcebook in Indian philosophy*. Princeton: Princeton University Press.
5. Hiriyanna, M. (1997). *Outlines of Indian philosophy*. Delhi: Motilal Banarsidas.
6. Puligandla, R. (1997). *Fundamentals of Indian philosophy*. Delhi: DK Printworld.
7. Ranganathananda, S. (2001). Introduction. In *The universal message of the Bhagavadgita* (pp. 9–38). Kolkata: Advaita Ashrama.
8. Raju, P. T. (2009). *The philosophical traditions of India*. Delhi: Motilal Banarsidas.
9. Mishra, J. C. (2012). *Bharatiya darshana (Indian philosophy)*. Varanasi: Chowkhamb Surbharati Prakashan.
10. Sharma, C. (2013). *A critical survey of Indian philosophy*. Delhi: Motilal Banarsidas.
11. Kaul, K. (2014). *The great Upanishadic: Understanding Brahman and the ultimate reality*. New Delhi.
12. Hiriyanna, M. (2015). *The essentials of Indian philosophy*. Delhi: Motilal Banarsidas.
13. Chatterji, S. C., & Datta, D. M. (2015). *An introduction to Indian philosophy*. Delhi: Motilal Banarsidas.
14. Radhakrishnan, S. (2016). *The principal Upanishads*. New Delhi: HarperCollins.

15. Dasgupta, S. (2018). *A history of Indian philosophy* (Vols. I–II). Delhi: Rupa Publications India.
16. Harshananda, S. (2021). *Hindu gods and goddesses*. Mylapore, Madras: Shri Ramakrishna Math.
17. *Hindu philosophy of life and Indian thinkers*. (2024). New Delhi: Motilal Banarasidas and Bharatiya Vidya Adhyayan Kendra.

Additional Readings:

1. काणे, पी. वी. (1992). *धर्मशास्त्र का इतिहास* (हिन्दी अनुवादक - अर्जुन चौबे कश्यप). लखनऊ: उत्तर प्रदेश हिंदी संस्थान।
2. *Encyclopedia of Hinduism* (2012). 11 vols. New Delhi: Rupa; International edition, Mandala Publications, USA, 2013.

Credits - 3
Hours - 45

MD 5: Vedic Mathematics and Jyotiiṣa

Course Objectives:

1. To introduce learners to the ancient Indian knowledge systems of Vedic Mathematics and Jyotisha (astrology).
2. To present a brief history of Indian mathematics and astrology, along with key texts associated with these disciplines.
3. To describe the purpose, outcomes and significance of astronomical calculations and triadic mathematical rules in ancient India.
4. To provide detailed insights into the distinct features of ancient Indian mathematical formulas, including early concepts of algebra, calculus and number theory.
5. To familiarize learners with the foundational and applied aspects of the ancient Indian mathematical system—such as concepts of number, digit, zero, infinity, decimal system and square roots.
6. To appraise major Indian methods and systems of astronomical observation and their relevance to ancient scientific thought.

Learning Outcomes:

After the completion of the course, the students will:

1. Describe the ancient Indian knowledge on mathematical and astronomical systems.
2. List the ancient Indian texts and authors to establish the lineage of mathematical and astronomical tradition.
3. Give details about the text of Vedic Mathematics authored by Swami Bhartikrishna Teerth.
4. Describe the formulas of the arithmetic, algebra and geometry along their mathematical as well as astronomical applications.
5. Appreciating the ancient systems and means of observation for astronomical calculations.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 5	Vedic Mathematics and Jyotiiṣa	03	0	0	03

Details of Course:

Unit I Lagadha Jyotiṣa. **Credit 0.5**

- Lagadha Jyotiṣa - Aims and outcome of Astronomical Measurement.
- Importance of Mathematics and Three Variable Rules.

Unit II Vedic Mathematics. **Credit 0.5**

- Vedic Mathematics - Swami Srī Bhāratī Kṛṣṇatīrtha (First 5 Sutras).
- Technical Terms - Types of Mathematics (Algebra)
- Abstract.
- Calculus.
- Number theory Applied Kinetic Science.
- Static Science etc. (Number, Digits, Zero, Infinite, Decimal, Squire, Squire-root, Cube, Cube-root, Hypotenuse, Arc, Sine, Cosine, Tangent, Volume, Root, Surd, Equation, String, Angle

Unit III Introduction to Indian Mathematics and Astronomy. **Credit 1**

- Brief History of Indian Mathematics and Astronomy.
- Vedāṅga Jyotitiṣa.
- Śulbasūtra.
- Pacasiddhāntikā.
- Suryasiddhānta.
- Āryabhaṭṭa Prathama.
- Varāhamihira, Brahmagupta.
- Āryabhaṭṭa Dvitīya.
- Ṣṛīpati.
- Bhāskarācārya.
- Kamalākara.
- Jayasimha.

Unit IV Astronomical Measurements. **Credit 1**

- Ancient Activities and Observatories for Astronomical Measurement.
- Nādivalayayaja.
- Yāgyottarīturīyantra.
- Samrāṭpalabhāyatra.
- Śaṅkuyantra.
- Tārāmaṇdala.
- Cakrayantra.
- Yāmyottaradharātalīyaturīyayantra.
- Krāntivṛttayantra.
- Tulāmakararāśivalayayantra-karka-Ṣaṣṭhānśayantra – Jaipur Observatory (Built by Jaisingh), Observatory at Kashi, Jantar-Mantar (Delhi)

Essential/Recommended Readings/Texts:

1. Jagadguru Swami Sri Bharati Krsna Tirthaji Maharaja. (1965). *Vedic mathematics*. Delhi: Motilal Banarasidass.
2. Aryabhata. (1976). *Aryabhatiya of Aryabhata, with the commentary of Bhaskara I and Somesvara* (K. S. Shukla, Ed.). New Delhi: Indian National Science Academy.

3. सूर्यसिद्धान्त, पं. श्री कपिलेश्वर शास्त्री मैथिल विरचित शास्त्री विरचित श्री तत्त्वामृतभाष्योपपत्ति टिप्पणी सहित. (1987). वाराणसी: चौखम्बा संस्कृत संस्थान।
4. लगधज्योतिष (याजुष् व आर्य संस्करण) - लगधाचार्य सोमाकर, सुधाकर भाष्य, लघुविवरण संस्कृत टीका, विस्तृत भूमिका, सान्वयानुवाद व सुयशा हिन्दी टीका सहित. (2008). डॉ. पुनीता शर्मा, नाग पब्लिशर्स, दिल्ली।

Additional Readings:

1. गोरखप्रसाद. (1974). *भारतीय ज्योतिष का इतिहास*. लखनऊ: उत्तर प्रदेश हिन्दी संस्थान, हिन्दी समिति ग्रन्थमाला।
2. दीक्षित, श. ब. (1990). *भारतीय ज्योतिष* (मूलतः मराठी में; हिन्दी अनुवाद: शिवनाथ झारखण्डी). लखनऊ: उत्तर प्रदेश हिन्दी संस्थान, हिन्दी समिति ग्रन्थमाला।
3. शर्मा, क. द. (1994). *वेधशाला परिचय*. दिल्ली: लालबहादुर शास्त्री राष्ट्रीय संस्कृत विद्यापीठ।
4. द्विवेदी, भ. (2002). *आचार्य वराहमिहिर का ज्योतिष में योगदान*. दिल्ली: रञ्जन पब्लिकेशन।

Credits - 3
Hours - 45

MD 6: Indian Foreign Policy

Course Objectives:

1. To develop a comprehensive understanding of the evolution and dynamics of India's foreign policy since independence.
2. To examine the enduring themes, principles and strategies guiding India's external engagement.
3. To assess India's relations with major powers and regions, focusing on their implications for national security and global positioning.
4. To critically evaluate the domestic, regional and international determinants shaping foreign policy decisions.
5. To equip students with analytical tools to understand contemporary challenges and future trajectories of India's diplomacy in a rapidly changing global order.

Learning Outcomes:

After the completion of the course, the students will:

1. Define and analyse the determinants of Indian foreign policy, including the role of ideas, institutions and leadership.
2. Critically evaluate the phases and shifts in India's foreign policy from 1947 to the present.
3. Demonstrate a nuanced understanding of India's bilateral and multilateral relations.
4. Assess India's strategic interests in South Asia, extended neighbourhoods and global arenas.
5. Engage with debates surrounding strategic autonomy, non-alignment, Indo-Pacific and diaspora diplomacy.
6. Develop skills in policy analysis, case study presentation and critical debate on foreign policy issues.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 6	Indian Foreign Policy	03	0	0	03

Details of Course:

Unit I Introduction, Structure and Determinants of India's Foreign Policy. Credit 0.5

- The meaning of foreign policy and its relation to national interest.
- Determinants of India's foreign policy.
- Formative Ideas of Indian Foreign Policy: Strategic Autonomy, Non-Alignment, Directive Principles of State Policy and Panchsheel.
- Institutions, Actors and Personalities in the Making of India's Foreign Policy (Parliament, Cabinet, Political parties, Pressure Groups, Foreign Policy Planning, Bureaucracy, Military, National Security Council)

Unit II Phases in India's Foreign Policy. **Credit 1**

- 1947-1962: Optimistic Non-Alignment.
- 1962-1971: Conflicts and Change.
- 1971-1991: A Regional Security Provider.
- 1991-2013: Globalisation and New Partnerships.
- 2013-2022: Foreign Policy with a New Vigour.

Unit III India's Foreign Relations. **Credit 1**

- India and South Asia: Major Issues and their implications for National Security.
- Extended neighbourhood: West Asia, Central Asia and Southeast Asia.
- Key bilateral relations: United States, Russia, France, China, Japan, Israel, Africa.

Unit IV India's Foreign Policy in Changing Times. **Credit 0.5**

- India's Foreign Policy and the Indo-Pacific Region.
- India's Foreign Policy towards the West.
- Multilateral Institutions and India's Foreign Policy.
- Diaspora and foreign policy.

Essential/Recommended Readings/Texts:

1. Appadorai, A. (1949). India's foreign policy. *International Affairs, 25*(1).
2. Mohan, C. R. (2003). *Crossing the Rubicon: The shaping of India's new foreign policy*. New Delhi: Viking.
3. Ganguly, S., & Mukherji, R. (2011). *India since 1980*. Cambridge: Cambridge University Press.
4. Nehru, J. (2012). *The discovery of India*. New Delhi: Penguin.
5. Khilnani, S., et al. (2013). *Non-alignment 2.0: A foreign and strategic policy for India in the twenty-first century*. New Delhi: Penguin.
6. Malone, D. M., Mohan, C. R., & Raghavan, S. (Eds.). (2015). *The Oxford handbook of Indian foreign policy*. Oxford: Oxford University Press.
7. Pant, H. (2016). *Indian foreign policy: An overview*. Manchester: Manchester University Press; Hyderabad: Orient BlackSwan.
8. Pant, H. (2019). *Indian foreign policy: The Modi era*. New Delhi: Har Anand.
9. Jaishankar, S. (2020). *The India way: Strategies for an uncertain world*. New Delhi: HarperCollins.

Additional Readings:

1. Appadorai, A. (1981). *The domestic roots of India's foreign policy, 1947–1972*. Oxford: Oxford University Press.
2. Rajan, M. S. (1997). *Recent essays on India's foreign policy*. Delhi: Kalinga Publications.
3. Thakur, R. (1992). India after nonalignment. *Foreign Affairs, 71*(2).
4. Garver, J. (2001). *Protracted contest: Sino-Indian rivalry in the twentieth century*. Seattle: University of Washington Press.
5. Dixit, J. N. (2004). *Makers of India's foreign policy*. New Delhi: HarperCollins.

6. Raghavan, S. (2010). *War and peace in modern India: A strategic history of the Nehru years*. New Delhi: Permanent Black.
7. Malone, D. M. (2012). *Does the elephant dance? Contemporary Indian foreign policy*. Oxford: Oxford University Press.
8. Cohen, S. P. (2013). *Shooting for a century: The India-Pakistan conundrum*. New Delhi: HarperCollins.
9. Sidhu, W. P. S., Mehta, P. B., & Jones, B. (2013). *Shaping the emerging world: India and the multilateral order*. Washington, DC: Brookings Institution Press.
10. Abraham, I. (2014). *How India became territorial: Foreign policy, diaspora, geopolitics*. Stanford: Stanford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in workshops/seminars on Indian diplomacy, South Asia, or Indo-Pacific geopolitics.
2. Writing assignments on key policy shifts (e.g., India's 1971 intervention in Bangladesh, Look East/Act East policy, Indo-Pacific strategy).
3. Short video/infographic production explaining a foreign policy doctrine (e.g., Non-Alignment, Gujral Doctrine, Modi's Neighbourhood First).
4. Simulation/role play exercises such as Model SAARC, BRICS, or UNSC discussions.
5. Case study presentation (e.g., India–US nuclear deal, Doklam standoff, India's role in UN peacekeeping).
6. Policy memo writing on a contemporary issue (e.g., India's approach to QUAD, relations with West Asia, or climate diplomacy).
7. Book/article review (e.g., Jaishankar's The India Way or Raja Mohan's Crossing the Rubicon).

Credits - 3
Hours - 45

MD 7: Political Thought in Sanskrit Literature

Course Objectives:

1. To familiarize learners with the concept and evolution of political thought in Sanskrit literature.
2. To introduce the Dharmaśāstra texts as foundational sources of Indian political philosophy.
3. To acquaint students with the various dimensions of Sanskrit political thought and the institutions of polity reflected in classical texts.
4. To underline the contributions of the Vedic Saṁhitās, Mahābhārata, Purāṇas, Kautilya's Arthaśāstra and Nītiśāstra in shaping the tradition of Sanskrit political thought.
5. To describe the nature and classifications of the state as found in the Smriti literature.
6. To highlight the key theories of ancient Indian polity, including Saptāṅga, Maṇḍala, Ṣāḍguṇya, Caturvidha Upāya and related concepts.

Learning Outcomes:

After the completion of the course, the students will:

1. Give introduction to the concept of political thought in Sanskrit literature.
2. Describe the fundamental concepts of Bhāratīya political thoughts discussed in ancient Sanskrit texts.
3. List the prominent texts pertaining to the Bharatiya political thought in Sanskrit including Vedas, Mahābhārata, Purāṇas, Arthaśāstra and Nītiśāstra.
4. Spread awareness about focal aspects of Bhāratīya political thoughts and institutions of polity.
5. Evaluate the contribution of Smriti literature in shaping the Bharatiya political thought in Sanskrit.
6. Write short notes upon the Sanskrit political thoughts described in Saptāṅga, Maṇḍala, Ṣāḍguṇya, Chaturvidha Upāy etc.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 7	Political Thought in Sanskrit Literature	03	0	0	03

Details of Course:

Unit I Name and Sources of Ancient Bhāratīya Political Thought. Credit 1

- Various Names of Ancient Bhāratīya Political Treatises: 'Daṇḍanīti', 'Arthshastra', 'Dharmaśāstra', 'Rajshastra', 'Nītiśāstra'.
- Sources of Ancient Bhāratīya Political Thought: Vedic Literature, Rāmāyaṇa, Mahābhārata, Purāṇa, Dharmaśāstra, Nītiśāstra

- Prominent Bhāratīya Political Thinkers: Manu, Śukrācārya, Kautilya, Kāmandaka, Somadeva Suri

Unit II Nature and Types of the State. Credit 1

- Nature of the State - Arthaśāstra (6.1) and Manusmṛti (9.294).
- Types of the State - Rājya, Svarājya, Bhojya, Vairājya, Mahārājya, Sāmarājya (Aitreya Brāhmaṇa, 8.3.13-14; 8.4.15-16).

Unit III Ancient Bhāratīya Political Thought: Origin and Development. Credit 1

- Vedic Literature - Election of King by the People 'Visas' in Vedic period: (Ṛgveda,10.173;10.174, Atharvaveda, 3.4.2; 6.87.1-2), Parliamentary Institutions: 'Sabhā, 'Samiti' and 'Vidatha'
- Post Vedic literature - Kautilya's concept of the Welfare State (Arthaśāstra, 1.13); Essential Qualities of King (Arthaśāstra, 6.1.16-18); Duties of King and State 'Rajadharma' (Mahābhārata, Śāntiparva, 120.1-15; Manusmṛti, 7.1-15; Śukranīti, 1.1-15), Constituent Elements (Somadeva's Nītivākyāmṛta, 9.1.18 and, 19.1.10).

Unit IV Cardinal Theories of Ancient Bhāratīya Polity. Credit 1

- Saptāṅga' Theory: Svāmī, Amātya, Janapada, Pura, Kośa, Daṇḍa and Mitra.
- 'Maṇḍala' Theory of Inter-State Relations.
- 'Ṣāḍguṇya' Policy of war and peace Diplomacy: Sandhi, Vigraha, Yāna, Āsana, Saṁśraya and Dvaidhībhāva.
- 'Chaturvidha Upāy' for balancing of power of state: Sāma, Dāma, Daṇḍa, Bheda.
- Three types of State Power 'Śakti': Prabhu Śakti, Mantra Śakti and Utsāha Śakti.

Essential/Recommended Readings/Texts:

1. H.H. Wilson, trans. (1946). *Ṛgveda Samhitā* (6 vols.). Bangalore: Bangalore Printing & Publishing Co.
2. H.P. Shastri. (1952–1959). *Mahabharata* (7 vols.). London.
3. H.P. Shastri, trans. (1952–1959). *Ramayana of Valmiki* (3 vols.). London.
4. S.K. Belvalkar. (1954). *Mahabharata: Santi Parvam*.
5. J.R. Gharpure. (1956). *Teaching of Dharmashastra*. Lucknow: Lucknow University.
6. U.N. Ghosal. (1959). *A history of Bhāratīya political ideas*. Bombay: Oxford University Press.
7. R.P. Kangle, ed. (1965). *Arthashastra of Kautilya*. Delhi: Motilal Banarsidas.
8. K.P. Jayaswal. (1967). *Hindu Polity*. Bangalore.
9. R.T.H. Griffith, trans. (1896–1897; reprint 1968). *Atharvaveda Samhita* (2 vols.).
10. उदयवीर शास्त्री, अनुवाद, (1968), *कौटिल्यीय अर्थशास्त्र*, दिल्ली : मेहरचन्द लक्ष्मनदास।
11. ब्रह्मशंकर मिश्र. (1968), *शुक्रनीति* (हिन्दी अनुवाद), वाराणसी : चौखम्भा संस्कृत सीरीज।
12. A.S. Altekar, (1973), *State and government in ancient India*, Delhi: Motilal Banarsidas.
13. प्रेमकुमारी दीक्षित, (1977), *प्राचीन भारत में अन्तराष्ट्रीय सम्बन्ध*, लखनऊ : उत्तर प्रदेश हिन्दी ग्रन्थ अकादमी।
14. कौटिल्य अर्थशास्त्र, वाचस्पति गैरोला, वाराणसी.

15. कौटिल्य अर्थशास्त्र, संस्कृत टीका सहित, सम्पादक – टी. गणपति शास्त्री, त्रिवेन्द्रम्.
16. प्रकाश नारायण नाटाणी, *प्राचीन भारत में राजनीतिक विचारक*. जयपुर : पोइन्टर पब्लिशर्स।
17. शशि तिवारी, (2013), *संस्कृत साहित्य में राष्ट्रवाद एवं भारतीय राजशास्त्र*, दिल्ली: विद्यानिधि प्रकाशन।

Additional Readings:

1. Sinha, K. N. (1938). *Sovereignty in ancient Bharatiya polity*. London.
2. Verma, V. P. (1954). *Studies in Hindu political thought and its metaphysical foundations*. Delhi.
3. Law, N. S. (1960). *Aspect of ancient Bharatiya polity*. Calcutta.
4. Saletore, B. A. (1963). *Ancient Bharatiya political thought and institutions*. Bombay.
5. Beni Prasad. (1968). *Theory of government in ancient India*. Allahabad.
6. Maheshwari, S. R. (n.d.). *Local government in India*. New Delhi: Orient Longman.
7. Sharma, R. S. (1996). *Aspects of political ideas and institutions in ancient India*. Delhi.

Credits - 3
Hours - 45

MD 8: International Political Economy

Course Objectives:

1. To provide students with a systematic understanding of International Political Economy (IPE) as a sub-discipline of International Relations.
2. To explore key theories, concepts and institutions that shape the international economic order.
3. To critically analyse the relationship between politics and economics in shaping trade, finance, production and development.
4. To examine the role of international institutions, regional groupings and global governance mechanisms in regulating economic relations.
5. To equip students with skills to evaluate globalisation, crises, sanctions and North-South dynamics in contemporary IPE.

Learning Outcomes:

After the completion of the course, the students will:

1. Define the scope and approaches of IPE and its significance in world politics.
2. Compare and contrast the theoretical perspectives of Liberalism, Mercantilism, Structuralism and Constructivism in IPE.
3. Analyse the evolution and functioning of trade and monetary regimes such as Bretton Woods, IMF, IBRD, GATT and WTO.
4. Assess the impact of regional integration (ASEAN, EU, NAFTA/USMCA, SAARC) on the world economy.
5. Evaluate the implications of globalisation, economic crises, sanctions and structural adjustment programmes for the Global South, with a focus on India.
6. Apply theoretical insights to real-world case studies such as the 1998 Asian Financial Crisis, the 2008 global financial crisis and WTO dispute settlement involving developing countries.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 8	International Political Economy	03	0	0	03

Details of Course:

Unit I Introduction to International Political Economy. **Credit 0.5**

- Defining IPE: meaning, concept and significance.
- The four levels of analysis: Global, Interstate, State and Individual.
- The five IPE Structures: production, trade, finance, security and knowledge.

Unit II Theories of International Political Economy. **Credit 1**

- The Liberal perspective.
- The Mercantilist perspective.
- The Structural perspective.
- The Constructivist perspective.

Unit III International Monetary and Trade Regime. **Credit 0.5**

- The Bretton Woods System: IMF and IBRD.
- GATT trade negotiations rounds.
- The Uruguay Round and the establishment of the WTO.
- Issues of trade: tariffs vs. non-tariff barriers, goods, services, agriculture, intellectual property rights.
- East Asian Crisis 1998 and the 2008 financial crisis.

Unit IV Regional Integration. **Credit 1**

- Regional trade agreements and the WTO: conflict or compatibility?
- G7, G77, ASEAN, EU, NAFTA (USMCA) and MERCOSUR
- Political economy in India and South Asia.

Unit V Globalization and the Global North and South. **Credit 1**

- Concept of Globalization.
- Developed vs. the developing world.
- Structural Adjustment Programme.
- Dispute Settlement Mechanism and developing countries with reference to India.
- Linkages between economic factors and conflicts.
- Economic Sanctions.

Essential/Recommended Readings/Texts:

1. Gilpin, R. (2001). *Global political economy: Understanding the international economic order*. Princeton: Princeton University Press.
2. Frieden, J., Lake, D., & Lawrence, J. B., eds. (2010). *International political economy* (5th ed.). New York: W.W. Norton.
3. Walter, A., & Sen, G. (2009). *Analyzing the global political economy*. Princeton: Princeton University Press.
4. Ravenhill, J. (2011). *Global political economy* (3rd ed.). Oxford: Oxford University Press.
5. Oatley, T. (2012). *International political economy: Interests and institutions in the global economy* (5th ed.). London: Pearson Longman.
6. Balaam, D. N., & Dillman, B. (2019). *Introduction to international political economy* (7th ed.). London: Routledge.

Additional Readings:

1. Strange, S. (1994). *States and markets*. London: Continuum.

2. Mansfield, E. D., ed. (2004). *International conflict and the global economy*. Philadelphia: University of Pennsylvania Press.
3. Helleiner, E. (2014). *The status quo crisis: Global financial governance after the 2008 meltdown*. Oxford: Oxford University Press.
4. Rodrik, D. (2011). *The globalization paradox: Democracy and the future of the world economy*. New York: W.W. Norton.
5. Keohane, R. O., & Nye, J. (2012). *Power and interdependence*. London: Longman.
6. Bayne, N., & Woolcock, S., eds. (2016). *The new economic diplomacy: Decision-making and negotiation in international economic relations*. London: Routledge.
7. Batra, A. (2018). Political economy in South Asia. In S. Hua (Ed.), *Routledge handbook of politics in Asia*. London: Routledge.
8. Omeje, K., ed. (2018). *Extractive economies and conflicts in the global South*. London: Routledge.
9. Tooze, A. (2018). *Crashed: How a decade of financial crises changed the world*. London: Penguin.
10. Chaterjee, C. (2020). *Economic diplomacy and foreign policy-making*. London: Palgrave.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in workshops/seminars on WTO, globalization, or international trade regimes.
2. Writing assignments on case studies (e.g., India and WTO disputes, 1998 Asian crisis, 2008 financial crisis).
3. Producing short videos/infographics explaining IPE theories or key concepts (e.g., Bretton Woods, Structural Adjustment Programmes).
4. Simulation/role play exercises such as Model WTO or IMF negotiations.
5. Presentation of a case study on globalization's impact on India's economy, sanctions on Iran/Russia, or US–China trade war.
6. Policy memo writing on India's trade strategy in WTO, Indo-Pacific economic cooperation, or response to global crises.
7. Book/article review (e.g., Rodrik's Globalization Paradox or Gilpin's Global Political Economy)

Credits – 2
Hours - 30

MD 9: Soft Skills

Course Objectives:

1. To build effective interpersonal and communication skills.
2. To enhance self-awareness, emotional intelligence, and teamwork.
3. To prepare students for interviews, group discussions, and workplace interactions.

Learning Outcomes:

After the completion of the course, the students will:

1. Communicate effectively in professional contexts.
2. Collaborate in teams and exhibit leadership.
3. Apply time management, emotional intelligence, and professional etiquette.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 9	Soft Skills	03	0	0	03

Details of Course:

Unit I Communication Skills. **Credit 1**

- Verbal and non-verbal communication
- Active listening and presentation skills
- Public speaking and articulation

Unit II Interpersonal and Team Skills. **Credit 1**

- Empathy, rapport-building
- Conflict resolution and teamwork dynamics
- Leadership and motivation

Unit III Personal Effectiveness. **Credit 1**

- Emotional intelligence and self-awareness
- Goal setting and time management
- Stress management techniques

Unit IV Professional Skills. **Credit 1**

- Resume writing and interview preparation
- Group discussions and workplace etiquette
- Digital communication and social media conduct

Essential/Recommended Readings/Texts:

1. *Soft Skills* by Alex & S. Chand
2. *Personality Development and Soft Skills* by Barun K. Mitra
3. *Business Communication and Soft Skills* by K. Alex
4. *The 7 Habits of Highly Effective People* by Stephen R. Covey
5. *Emotional Intelligence* by Daniel Goleman

Credits – 2
Hours - 30

MD 10: Philosophical Literature in Sanskrit

Course Objectives:

1. To introduce students to the key philosophical schools of Sanskrit literature.
2. To explore the central texts and concepts of major Indian philosophical traditions.
3. To develop the skills to analyze and interpret ancient Sanskrit texts in their philosophical context.
4. To understand the application of ancient Indian philosophical thought in modern contexts.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify and describe the major schools of Indian philosophy (Vedānta, Nyāya, Sāṃkhya, Yoga, etc.) and their foundational Sanskrit texts.
2. Analyze and interpret selected Sanskrit philosophical texts in their historical and cultural context.
3. Explain key philosophical concepts such as *Brahman*, *Ātman*, *mokṣa*, *pramāṇa*, and their interrelations.
4. Compare different philosophical traditions and their approaches to reality, knowledge, and liberation.
5. Apply insights from ancient Indian philosophy to contemporary discussions on science, spirituality, ethics, and modern thought.
6. Develop critical thinking skills through the study of logical reasoning, metaphysical inquiry, and ethical perspectives of Indian philosophical schools.
7. Demonstrate the ability to relate classical philosophical concepts to modern intellectual and social challenges.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
MD 9	Soft Skills	03	0	0	03

Details of Course:

Unit I Introduction to Sanskrit Philosophical Literature. **Credit 1**

- **Focus:** Overview of major philosophical schools in Sanskrit literature, such as Vedanta, Nyaya, Sankhya, and others.
- **Skills:** Understanding key philosophical concepts such as the nature of reality, knowledge, and liberation, and their textual foundations in classical Sanskrit literature.
- **Readings:**
    - Bhagavad Gita
    - Tattvabodha by Shankaracharya

Unit II Vedantic Philosophical Texts. Credit 1

- **Focus:** Exploration of Vedanta philosophy, including its core concepts like non-dualism, Brahman (the absolute reality), and Atman (the individual soul).
- **Skills:** Analyzing Vedantic texts to understand the philosophy of non-duality, self-realization, and the relationship between Atman and Brahman.
- **Readings:**
    - **Upanishads** (selected chapters, focusing on central texts like Isha, Kena, and Mundaka Upanishads)
    - **Brahma Sutras** (selected chapters focusing on the nature of reality and liberation)

Unit III Classical Systems of Indian Philosophy. Credit 1

- **Focus:** Study of other classical Indian philosophical schools like Nyaya, Sankhya, and Yoga, focusing on their methods of logical reasoning, metaphysical inquiry, and ethics.
- **Skills:** Understanding how each philosophical system deals with logic, epistemology, metaphysics, and the concept of liberation.
- **Readings:**
    - Yoga Sutras of Patanjali.
    - Nyaya Sutras of Gautama

Unit IV Contemporary and Modern Interpretations of Sanskrit Philosophy. Credit 1

- **Focus:** Exploration of modern interpretations of classical Sanskrit philosophical texts, and how ancient philosophical ideas are applied to contemporary issues like science, spirituality, and ethics.
- **Skills:** Interpreting and applying ancient philosophical concepts to contemporary philosophical discourse.
- **Readings:**
    - The Philosophy of the Upanishads by Paul Deussen
    - Sankara's Commentary on the Bhagavad Gita (selected sections)

Essential/Recommended Readings/Texts:

1. Śaṅkarācārya. (8th century). Tattvabodha.
2. Śaṅkarācārya. (8th century). Bhagavadgītā-bhāṣya [Commentary on the Bhagavad Gītā].
3. Gautama. (circa 2nd century BCE–2nd century CE). Nyāya-sūtra.
4. Patañjali. (circa 2nd century BCE). Yoga-sūtra.
5. Bādarāyaṇa. (circa 2nd century BCE). Brahma-sūtra.
6. Īśa Upaniṣad. (circa 800–600 BCE).
7. Kena Upaniṣad. (circa 800–600 BCE).
8. Muṇḍaka Upaniṣad. (circa 600 BCE).
9. Vyāsa. (circa 4th century BCE). Bhagavad Gītā.
10. Deussen, P. (1906). The philosophy of the Upanishads. Edinburgh: T. & T. Clark.

POOL OF
SKILL ENHANCEMENT COURSES

Credits - 2
Hours - 30

SEC 1: Web Application Development for Sanskrit - I (Basics)

Course Objectives:

1. To introduce fundamental concepts of web applications with Sanskrit content.
2. To train students in the basics of HTML, CSS and Unicode typing in Devanāgarī.
3. To enable students to design simple Sanskrit-friendly static web pages.
4. To encourage the integration of Sanskrit with digital platforms.

Learning outcomes:

After the completion of the course, the students will:

1. Describe the structure of a basic web application (front end, server, back end).
2. Write and style simple web pages using HTML and CSS.
3. Use Unicode typing tools for Sanskrit text input.
4. Publish a basic Sanskrit web page (static).

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical / Practice	
SEC 1	Web Application Development for Sanskrit - I (Basics)	02	0	0	02

Details of Course:

Unit I Introduction to Web Applications for Sanskrit. **Credit 0.5**

- Front End, Web Server.
- Back End: Concepts and relation.
- Web applications in Indian languages: Case studies.

Unit II Basics of HTML and CSS. **Credit 0.5**

- HTML tags, headings, paragraphs, links, images, tables.
- Basics of CSS for formatting Sanskrit text.
- Use of Unicode fonts in HTML documents.

Unit III Unicode Typing Tools for Sanskrit. **Credit 0.5**

- Devanāgarī Unicode: concepts and encoding.
- Computer typing programs, online tools, voice typing
- Practice: typing verses, subhāṣitas, ślokas.

Unit IV Practical Web Page Design. **Credit 0.5**

- Building a sample webpage with Sanskrit content (shloka display, vocabulary list).
- Formatting Sanskrit text with CSS.
- Introduction to GitHub Pages for free hosting.

Essential/Recommended Readings/Texts

1. Chandra, S. (2017). *मशीनी अनुवाद (Machine Translation)*. New Delhi: Vidya Nidhi Prakashana.
2. Chandra, S. (2021). *भाषासंगणन (Language Computing)*. New Delhi: Upasana Publications.
3. Various e-resources and online tools suggested by teachers.

Additional readings

1. W3Schools. "HTML Tutorial." https://www.w3schools.com/html/.
2. W3Schools. "CSS Tutorial." https://www.w3schools.com/css/default.asp.
3. W3Schools. "JS Tutorial." https://www.w3schools.com/js/default.asp.
4. W3Schools. "Python Tutorial." https://www.w3schools.com/python/default.asp.
5. W3Schools. "SQL Tutorial." https://www.w3schools.com/sql/default.asp.

Credits - 2
Hours - 30

SEC 2: Introduction to War Technologies

Course Objectives:

1. To develop a foundational understanding of war technologies and their evolution.
2. To impart knowledge of key categories of military technology, their principles and applications.
3. To equip students with the ability to critically analyse technological innovations in warfare.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the basic principles, components and classifications of war technologies.
2. Analyse the evolution of military technology from ancient to modern warfare.
3. Explain the operational utility of key systems in land, air, naval and cyber domains.
4. Critically assess the role of technology in shaping strategy, tactics and defence planning.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 2	Introduction to War Technologies	02	0	0	02

Details of Course:

Unit I Foundations and Historical Evolution of War Technologies. Credit 0.5

- Definition, scope and significance of war technologies.
- Historical evolution: Ancient, Medieval, Industrial Age, Modern and Information Age warfare.
- Key milestones: metallurgy, gunpowder, mechanisation, nuclear weapons, digital warfare.
- Classification of war technologies: Conventional, unconventional, kinetic, non-kinetic.
- Impact of technological change on military strategy and doctrine.

Unit II Land Warfare Technologies Credit 0.5

- Small arms and infantry weapons: design, calibres and operational uses.
- Artillery systems: field artillery, howitzers, rocket artillery.
- Armoured vehicles and tanks: evolution, armour types and fire control systems.
- Battlefield mobility and engineering equipment.
- Surveillance and reconnaissance systems in land warfare.

Unit III Naval, Air and Emerging Domains **Credit 0.5**

- Naval warfare technologies: ships, submarines, aircraft carriers and naval weapons systems.
- Air warfare technologies: fighter aircraft, bombers, UAVs and precision-guided munitions.
- Missile systems: ballistic, cruise and anti-missile defence technologies.
- Space-based military assets: satellites, navigation, ISR (Intelligence, Surveillance, Reconnaissance).
- Cyber warfare tools, information warfare systems and AI in defence.

Unit IV Future Trends, Ethics and Strategic Implications **Credit 0.5**

- Emerging military technologies: hypersonic weapons, autonomous systems, directed energy weapons.
- Robotics and unmanned systems in all domains.
- Ethical issues and laws of armed conflict relating to technology.
- Strategic stability, arms race and proliferation concerns.
- Defence R&D, indigenous innovation and dual-use technologies.

Essential/Recommended Readings/Texts:

1. van Creveld, M. (1991). *Technology and war: From 2000 B.C. to the present*. New York: Free Press.
2. Freedman, L. (1993). *The evolution of nuclear strategy*. London: Palgrave Macmillan.
3. Gray, C. S. (1999). *Modern strategy*. Oxford: Oxford University Press.
4. Krepinevich, A. F. (2002). *The military-technical revolution: A preliminary assessment*. Washington, DC: Center for Strategic and Budgetary Assessments.
5. O'Hanlon, M. E. (2009). *The science of war: Defense budgeting, military technology, logistics and combat outcomes*. Princeton, NJ: Princeton University Press.
6. Boot, M. (2006). *War made new: Technology, warfare and the course of history, 1500 to today*. New York: Gotham Books.
7. Singer, P. W. (2009). *Wired for war: The robotics revolution and conflict in the 21st century*. New York: Penguin Books.

Additional Readings:

1. Keegan, J. (1976). *The face of battle*. New York: Vintage Books.
2. Builder, C. H. (1989). *The masks of war: American military styles in strategy and analysis*. Santa Monica, CA: RAND Corporation.
3. Arquilla, J., & Ronfeldt, D. (1993). *Cyberwar is coming*. Santa Monica, CA: RAND Corporation.
4. Gates, S., & Reich, S. (1994). *The political economy of military spending*. London: Routledge.
5. Biddle, S. (2004). *Military power: Explaining victory and defeat in modern battle*. Princeton, NJ: Princeton University Press.
6. Mahnken, T. G. (2008). *Technology and the American way of war since 1945*. New York: Columbia University Press.

7. Chivers, C. J. (2010). *The gun*. New York: Simon & Schuster.
8. National Research Council. (2014). *Emerging and readily available technologies and national security*. Washington, DC: The National Academies Press.
9. Sloan, E. C. (2017). *Modern military strategy: An introduction*. London: Routledge.
10. Gilli, A., & Gilli, M. (2019). *Military innovation and defence industry*. Oxford: Oxford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in workshops on defence technology.
2. Writing assignments on specific weapons systems or technological innovations.
3. Producing short videos explaining a war technology.
4. Participation in simulation exercises or war games.
5. Presentation of a case study on technological impact in a historical battle.

Credits - 2
Hours - 30

SEC 3: Conflict Resolution

Course Objectives:

1. To introduce students to the basic concepts, theories and approaches of conflict and its resolution.
2. To help students analyse causes, dynamics and consequences of different types of conflict.
3. To develop the ability to apply negotiation, communication and mediation skills in conflict situations.
4. To encourage students to critically reflect on peacebuilding, cooperation and problem-solving in diverse contexts.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the basic concepts, types and approaches to conflict resolution.
2. Analyse the causes and dynamics of conflict at interpersonal, societal and international levels.
3. Apply theoretical approaches and practical strategies of negotiation and mediation to case studies.
4. Describe the role of individuals, institutions and societies in peacebuilding and cooperative problem-solving.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 3	Conflict Resolution	02	0	0	02

Details of Course:

Unit I Understanding Conflict. **Credit 1**

- Meaning, nature and types of conflict: interpersonal, group, organisational, community, international.
- Causes of conflict: structural, cultural, psychological.
- Positive and negative aspects of conflict.
- Approaches to studying conflict: psychological, sociological, political.

Unit II Techniques of Conflict Resolution. **Credit 0.5**

- Strategies: avoidance, accommodation, competition, compromise, collaboration.
- Communication skills in conflict resolution: active listening, empathy and assertiveness.
- Negotiation and Mediation: meaning, process and techniques.

- Arbitration and Conciliation.
- Dialogue and Facilitation.
- Track II and III Diplomacy.
- Power-Sharing Arrangements.

Unit III Conflict Resolution in Practice. Credit 0.5

- Conflict resolution in multicultural and diverse societies, Truth and Reconciliation Commissions (TRCs), UN Peacekeeping.
- Conflict resolution in academic and workplace settings.
- Role of youth in peacebuilding and conflict prevention.
- Introduction to peace education and non-violent communication.

Essential/Recommended Readings/Texts:

1. Bercovitch, J., & Jackson, R. (2009). *Conflict resolution in the twenty-first century: Principles, methods and approaches*. Ann Arbor: University of Michigan Press.
2. Fisher, R., Ury, W., & Patton, B. (2011). *Getting to yes: Negotiating agreement without giving in*. New York: Penguin.
3. Lederach, J. P. (2014). *The little book of conflict transformation*. Intercourse, PA: Good Books.
4. Ramsbotham, O., Woodhouse, T., & Miall, H. (2016). *Contemporary conflict resolution*. Cambridge: Polity Press.

Additional Readings:

1. Burton, J. W. (1996). *Conflict resolution: Its language and processes*. Lanham, MD: Scarecrow Press.
2. Galtung, J. (1996). *Peace by peaceful means: Peace and conflict, development and civilization*. London: Sage.
3. Mayer, B. (2000). *The dynamics of conflict resolution*. San Francisco: Jossey-Bass.
4. Kriesberg, L. (2012). *Constructive conflicts: From escalation to resolution*. Lanham, MD: Rowman & Littlefield.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Writing assignments on types and causes of conflict with reference to specific case studies.
2. Analysis of a real-world negotiation or mediation process and submission of a short report.
3. Presentation on the role of youth, community organisations, or international institutions in conflict resolution.
4. Group project: preparing a short “Conflict Resolution Action Plan” for a hypothetical or real-life scenario.
5. Critical reflection paper on the application of non-violent communication in academic or workplace settings.

Credits - 2
Hours - 30

SEC 4: Web Application Development for Sanskrit - II (Advanced)

Course Objectives:

1. To advance from static web pages to dynamic web applications for Sanskrit.
2. To introduce students to JavaScript, Python basics and databases.
3. To encourage hands-on creation of Sanskrit digital tools (lexicons, quizzes).
4. To provide skills in publishing and managing Sanskrit e-resources online.

Learning outcomes:

After the completion of the course, the students will:

1. Write basic JavaScript functions to add interactivity in Sanskrit web apps.
2. Be able to explain basics of Python for backend applications.
3. Store and retrieve Sanskrit text using files/databases.
4. Create and deploy small Sanskrit learning tools.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical / Practice	
SEC 4	Web Application Development for Sanskrit - II (Advanced)	02	0	0	02

Details of Course:

Unit I JavaScript for Sanskrit Web Apps. **Credit 0.5**

- Basics of JavaScript: variables, functions, events.
- Applications: random Sanskrit proverb display, interactive flashcards.

Unit II Python Basics for Web Development. **Credit 0.5**

- Syntax, input/output, simple scripts.
- Handling Sanskrit text files with Python.

Unit III Data Storage and Databases. **Credit 0.5**

- File-based storage of Sanskrit text.
- Introduction to SQL for Sanskrit text databases.
- Practice: storing ślokas and retrieving them via simple queries.

Unit IV Project Work in Sanskrit Web Development. **Credit 0.5**

- Building a simple web dictionary/glossary.
- Creating an online quiz with Sanskrit questions.
- Hosting projects on GitHub Pages or free servers.

Essential/Recommended Readings/Texts

1. Chandra, S. (2017). *मशीनी अनुवाद (Machine Translation)*. New Delhi: Vidya Nidhi Prakashana.
2. Chandra, S. (2021). *भाषासंगणन (Language Computing)*. New Delhi: Upasana Publications.

3. Various e-resources and online tools suggested by teachers.

Additional readings

1. HTML Tutorial. W3Schools. https://www.w3schools.com/html/.
2. CSS Tutorial. W3Schools. https://www.w3schools.com/css/default.asp.
3. JS Tutorial. W3Schools. https://www.w3schools.com/js/default.asp.
4. Python Tutorial. W3Schools. https://www.w3schools.com/python/default.asp.
5. SQL Tutorial. W3Schools. https://www.w3schools.com/sql/default.asp.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in hands-on coding workshops.
2. Writing assignments on JS/Python code snippets.
3. Producing short demo videos of Sanskrit web tools
4. Participation in the Sastra Sanjeevani programme.
5. Presentation of the topic in the Vagvardhini Parishad.

Credits - 4
Hours - 30

SEC 5: Computational Linguistics for Sanskrit

Course Objectives:

1. To introduce the concept of Computational Linguistics for Sanskrit and highlight its necessity for sustaining the language in the contemporary digital age.
2. To familiarize students with modern technologies and advancements in the fields of computational linguistics and language technology.
3. To facilitate the development of computational thinking and skills required to apply Sanskrit in various technological contexts.
4. To develop students' proficiency in the tools and techniques of computational linguistics, thereby enhancing their employability and potential for entrepreneurship.
5. To build technical dexterity in areas such as databases, database systems and the architecture of database systems relevant to Sanskrit language processing.

Learning Outcomes:

After the completion of the course, the students will:

1. Describe the theoretical concepts of Computational Linguistics and its coherence with Sanskrit.
2. State the basic concepts of the various applied areas of Computational Linguistics.
3. Distinguish among Morphological analyzer, Speech Recognition, Speech synthesis, Text to Speech, Language analysis and so.
4. Write short notes on Natural language Interface, Language processing Text Processing and Machine Translation etc.
5. Apply the basic concept of databases for data Storage and survey of Computational Linguistics.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 5	Computational Linguistics for Sanskrit	02	0	0	02

Details of Course:

Unit I Theoretical Concepts of Computational Linguistics. **Credit 1**

- Language and Communication.
- Levels of Language.
- Phonemes.
- Morphemes.
- POS.
- Lexicon.
- Syntax.
- Semantics.
- Discourse.
- Natural Language vs Artificial Language.

- Speech and Language.
- Grammars.
- Computer Intelligent Interaction (HCII).
- Human Processing of Languages vs Computer Processing of Natural Languages.
- Rule based vs Statistical Processing.
- Machine Learning.
- Annotation of Language.
- Standards.
- Unicode and Language Resources.

Unit II Survey of the Sanskrit Computational Linguistics. Credit 1

- Historical Overview.
- Milestones in Sanskrit NLP.
- Corpora & Resources.
- Methodologies & Approaches.
- Contemporary Research & Applications.

Unit III Applied Areas of Sanskrit Computational Linguistics. Credit 1

- Morphological Analyzer.
- Speech/Speaker Recognition.
- Speech Synthesis.
- Text to Speech.
- Language Analysis.
- Language Understanding.
- Language Generation.
- Natural Language Interface.
- Text Processing.
- Machine Translation.

Unit IV Data Storage. Credit 1

- An Introduction to Databases.
- Databases and Database Systems.
- Architecture of Database Systems.
- Historical Perspective of Database Systems.
- Basics of MS SQL Database.

Alternatively for 2 Credits:

Unit I Foundations of Computational Linguistics. Credit 1

- Language and Communication, Levels of Language, Phonemes, Morphemes, POS, Syntax, Semantics, Discourse.
- Human vs Computer Processing of Natural Languages.
- Grammars: Rule-based vs Statistical; Basics of Machine Learning.
- Language Resources: Annotation, Unicode standards, Corpora.

Unit II Sanskrit Computational Linguistics: Survey & Application. Credit 1

- Pāṇinian grammar and its influence on computational models.
- Key Tools & Resources: Sandhi splitters, compound analyzers, morphological analyzers, Sanskrit Wordnet, Digital Corpus of Sanskrit.
- Applied Areas: Speech recognition/synthesis, text processing, machine translation.
- Challenges: Inflectional morphology, free word order, multilingual links.
- Emerging Applications: NLP interfaces, AI-driven Sanskrit research.

Essential/Recommended Readings/Texts:

1. Grishman, R. (1986). *Computational linguistics: An introduction*. Cambridge University Press.
2. Gazdar, G., & Mellish, C. (1989). *NLP in Lisp*. Addison Wesley.
3. Gazdar, G., & Mellish, C. (1989). *NLP in Prolog*. Addison Wesley.
4. Bharti, A., Sangal, R., & Chaitanya, V. (1990). NL, complexity theory and logic. In *Foundations of software technology and theoretical computer science*. Springer.
5. Grosz, B. J., et al. (Eds.). (1990). *Readings in NLP*. Morgan Kaufmann.
6. Jurafsky, D., & Martin, J. H. (2000). *Speech and natural language processing*. Prentice Hall.
7. Elmasri, R., & Navathe, S. B. (2006). *Fundamentals of database systems* (5th ed.). Pearson Education.
8. Mitkov, R. (Ed.). (2005). *The Oxford handbook of computational linguistics*. Oxford University Press.
9. Lambert, K. A. (2011). *Fundamentals of Python: First programs*. Cengage Learning.
10. Jha, G. N. (Ed.). (2010). *Sanskrit computational linguistics*. Springer Verlag.
11. Chandra, S. (2017). *मशीनी अनुवाद [Machine translation]*. Vidya Nidhi Prakashana.
12. Chandra, S. (2021). *भाषासंगणन [Language computing]*. Upasana Publications.

Additional Readings:

1. Grishman, R. (1986). *Computational linguistics: An introduction*. Cambridge University Press.
2. Huet, G., Kulkarni, A., & Scharf, P. (Eds.). (2009). *Sanskrit computational linguistics symposium 1–2* (LNCS 5402). Springer Verlag.
3. Kulkarni, A., & Huet, G. (Eds.). (2009). *Sanskrit computational linguistics symposium 3* (LNCS 5406). Springer Verlag.
4. Chandra, S., & Jha, G. N. (2012). *Computer processing of nominal inflections in Sanskrit: Methods and implementations*. Cambridge Scholars Publishing.

Credits - 2
Hours - 30

SEC 6: IT Skills and Data Analysis

Course Objectives:

1. To develop foundational IT skills relevant for academic and applied contexts in Sanskrit and Defence Studies.
2. To train students in data handling, spreadsheets and visualization.
3. To introduce students to basic statistical concepts using digital tools.
4. To prepare students for applied research and project work with digital resources.

Learning Outcomes:

After the completion of the course, the students will:

1. Use word processing, spreadsheets and presentation tools for academic tasks.
2. Collect, organise and clean small datasets.
3. Perform basic descriptive statistics and simple data visualisations.
4. Apply IT tools in Sanskrit (text digitisation, word counts) and Defence Studies (data tables, graphs).
5. Gain confidence for further advanced courses in computational methods and R programming.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 6	IT Skills and Data Analysis	02	0	0	02

Details of Course:

Unit I Basic IT Tools. **Credit 1**

- Word Processing: formatting documents, using Unicode (Devanagari for Sanskrit).
- Spreadsheets: MS Excel / Google Sheets basics.
- Presentation tools: creating effective slides (PowerPoint/LibreOffice Impress).

Unit II Data Handling. **Credit 1**

- Types of data: text, numeric, categorical.
- Entering, editing and organising data in spreadsheets.
- Importing/exporting data (CSV, TXT, XLS formats).
- Data cleaning: handling missing values, duplicates.

Unit III Data Analysis & Statistics Basics. **Credit 1**

- Descriptive statistics: mean, median, mode, variance, standard deviation.
- Frequency tables, cross-tabulation.
- Introduction to simple charts: bar, line, pie, histogram.
- Case study examples: word frequency in Sanskrit texts; defence budget allocations.

Unit IV Practical Applications. **Credit 1**

- Using online tools and simple software for text analysis (e.g., word cloud generators, text frequency counters).
- Building simple dashboards in Excel/Sheets.
- Mini-projects:
    - Sanskrit: digitise a verse passage, analyse word counts.
    - Defence: collect open-source data (e.g., World Bank, government reports) and create charts.

Essential/Recommended Readings/Texts:

1. Shelly, G. B., & Vermaat, M. E. (2011). *Discovering computers: Fundamentals*. Cengage Learning.
2. Kuhn, M., & Johnson, K. (2013). *Applied predictive modeling*. Springer.
3. Kuhn, M., & Johnson, K. (2013). *Applied Predictive Modeling. Springer*. (Introductory chapters for statistics basics).
4. Kuhn, Max and Kjell Johnson. *Applied Predictive Modeling*. Springer, 2013.
5. Microsoft. *Microsoft Excel Training*. Microsoft Learn. https://support.microsoft.com/excel
6. Google Sheets Training. Google Workspace Learning Center. https://support.google.com/a/users/answer/9282959
7. **Online Resource:** World Bank Data https://data.worldbank.org

Additional Readings:

1. Seefeld, K., & Linder, E. (2007). *Statistics using R with biological examples*.
2. Gujarati, D. N., & Porter, D. C. (2010). *Basic econometrics*. McGraw Hill.
3. Chivers, I., & Sleightholme, J. (2018). *Introduction to programming with Python*. Springer.
4. Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2019). *Statistics for business and economics*. Cengage Learning.
5. **Websites/Tools:**
    - CRAN R Project. https://cran.r-project.org.
    - RStudio. *RStudio Download*. https://posit.co/download/rstudio/.
    - CMIE. *ProwessIQ (CMIE Database)*. https://prowessiq.cmie.com.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Practical Lab Assignments like formatting Sanskrit text in Unicode, creating tables, cleaning small datasets in Excel/Sheets.
2. Short Quizzes on basics of IT, file formats and introductory statistics.
3. Spreadsheet Exercises to create frequency tables, simple charts and apply formulas (sum, average, standard deviation).
4. Group Activity for collecting a small dataset (e.g., verses, defence expenditure) and present findings using charts/tables.
5. Mini-Project/Report which can be an individual project (digitise a short Sanskrit passage for word counts, OR analyse defence-related data from open sources).

Credits - 2
Hours - 30

SEC 7: Big Data Analytics

Course Objective

1. To introduce students to the concepts and tools of Big Data Analytics in a simplified and interdisciplinary way.
2. To train students in handling structured and unstructured datasets from Sanskrit texts and Defence studies.
3. To develop skills in data cleaning, analysis and visualisation using big data tools.
4. To encourage ethical and critical understanding of Big Data in cultural and strategic contexts.
5. To prepare students for applying analytics to research, policy and digital humanities.

Learning Outcomes

After studying this course, students will be able to:

1. Create the fundamentals of Big Data, its sources and applications.
2. Work with datasets (texts, defence reports, open data) using big data tools.
3. Apply data wrangling and exploratory analysis techniques.
4. Create visualisations and summaries from large datasets.
5. Critically evaluate the ethical and societal implications of Big Data in heritage and security contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 7	Big Data Analytics	02	0	0	02

Details of Course:

Unit I Introduction to Big Data. **Credit 1**

- What is Big Data? Characteristics (Volume, Velocity, Variety, Veracity, Value).
- Big Data in Humanities (Sanskrit texts, cultural archives).
- Big Data in Defence Studies (strategic data, geospatial intelligence, security).
- Sources of Big Data: open data, government portals, cultural repositories.

Unit II Tools and Technologies. **Credit 1**

- Basics of Hadoop and Spark (conceptual introduction, not technical deep dive)
- Introduction to Python/R for big data basics.
- Databases and storage: relational vs. non-relational (SQL vs NoSQL).
- Cloud-based big data tools (Google BigQuery, AWS, Azure basics).

Unit III Data Wrangling and Analysis. **Credit 1**

- Data extraction and cleaning (structured & unstructured).
- Handling text data: tokenisation, frequency analysis, sentiment basics.
- Applications: Sanskrit corpus analysis (word patterns, sandhi tracking).
- Applications: Defence datasets (budget, conflict data, strategic indicators).

Unit IV Data Visualisation and Applications. **Credit 1**

- Visualisation tools: Tableau / Power BI / ggplot in R.
- Dashboards and storytelling with data.
- Mini-project: Sanskrit corpus OR Defence dataset analysis (student choice).
- Ethical issues: data privacy, cultural sensitivity, national security in big data.

Essential/Recommended Readings/Texts:

1. Mayer-Schönberger, V., & Cukier, K. (2013). *Big data: A revolution that will transform how we live, work and think*. London, UK: John Murray.
2. Marr, B. (2016). *Big data in practice*. Chichester, UK: Wiley.
3. White, T. (2015). *Hadoop: The definitive guide*. Sebastopol, CA: O'Reilly.
4. Wickham, H., & Grolemund, G. (2017). *R for data science*. Sebastopol, CA: O'Reilly.
5. World Bank. *World Bank Open Data*. https://data.worldbank.org

Additional Readings:

1. Feldman, R., & Sanger, J. (2007). *The text mining handbook*. Cambridge, UK: Cambridge University Press.
2. Provost, F., & Fawcett, T. (2013). *Data science for business*. Sebastopol, CA: O'Reilly.
3. Choudhury, A. (2021). *Big data analytics with Python*. Birmingham, UK: Packt.
4. CRAN R Project. https://cran.r-project.org.
5. CMIE. *ProwessIQ (CMIE Database)*. https://prowessiq.cmie.com.
6. Kaggle. *Kaggle Datasets*. https://www.kaggle.com/datasets.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Quizzes on concepts of Big Data, tools and ethical issues.
2. Lab Assignments on importing, cleaning and summarising datasets in R/Python.
3. Mini-exercises including word frequency analysis (Sanskrit text) or defence expenditure chart.
4. Visualisation Task involving the creation of 2–3 graphs/dashboards from open datasets.
5. Group Presentation on Cultural heritage OR Defence dataset case study.Mini-Projects based on independent analysis + visualisation of a chosen dataset.

Credits - 3
Hours - 45

SEC 8: Introduction to Artificial Intelligence (AI)

Course Objectives:

1. To introduce the fundamentals of AI and its interdisciplinary relevance.
2. To connect AI concepts to applications in Sanskrit computational linguistics and Defence studies.
3. To build basic skills in AI tools (e.g., chatbots, simple classifiers, NLP basics).
4. To raise awareness of ethical issues in AI, especially in cultural and security contexts.
5. To encourage critical thinking on AI's role in heritage preservation and national defence.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the basic concepts and history of AI.
2. Recognise how AI applies to **language technologies** and **strategic/security domains**.
3. Use simple AI-driven tools for text analysis and decision support.
4. Apply basic AI concepts to Sanskrit text processing and Defence-related datasets.
5. Discuss ethical, cultural and security issues related to AI adoption.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credit
		Lecture	Tutorial	Practical/ Practice	
SEC 8	Introduction to Artificial Intelligence (AI)	03	0	0	03

Details of Course:

Unit I Fundamentals of Artificial Intelligence. **Credit 1**

- History and evolution of AI.
- Key concepts: intelligence, learning, reasoning, problem-solving.
- Types of AI: Narrow vs. General AI.
- Applications in Humanities and Defence.

Unit II AI Tools and Techniques. **Credit 1**

- Basics of Machine Learning (supervised vs unsupervised).
- Introduction to Natural Language Processing (NLP).
- Examples: Sanskrit word analysis, text classification.
- Defence applications: surveillance, decision support, geospatial data analysis.

Unit III Practical Applications. **Credit 1**

- AI in Sanskrit: morphological analyzers, machine translation, digital corpora.
- AI in Defence: predictive analytics, simulation, cybersecurity.
- Hands-on introduction to AI platforms (Google Colab, simple Python libraries).
- Mini-exercise: sentiment analysis of a text dataset.

Unit IV Ethics, Society and Future of AI. **Credit 1**

- AI and society: automation, jobs, education.
- Ethical issues: bias, privacy, cultural misrepresentation, military AI risks.
- AI in safeguarding cultural heritage.
- Student projects: propose an AI application in Sanskrit or Defence.

Essential/Recommended Readings/Texts:

1. Marr, B. (2018). *Artificial intelligence in practice*. Wiley.
2. Russell, S. J. (2019). *Human compatible: AI and the problem of control*. Viking.
3. Russell, S. J., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
4. UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*.
5. Jurafsky, D., & Martin, J. H. (2023). *Speech and language processing* (3rd ed., draft).

Additional Readings:

1. Chaturvedi, M., et al. (2020). *Sanskrit and AI: Exploring computational approaches* (Selected papers).
2. Marcus, G. (2020). *Rebooting AI*. Pantheon.
3. Alpaydin, E. (2021). *Introduction to machine learning*. MIT Press.
4. **Online resources:**
   - Google AI Education. https://ai.google/education/.
   - MIT OpenCourseWare: Artificial Intelligence. https://ocw.mit.edu/courses/artificial-intelligence/.
   - Kaggle Datasets. https://www.kaggle.com/datasets/

Continuous Assessment:

The assessment should be based on any four of the following:

1. Short quizzes on the basics of AI concepts and history.
2. Practical assignment on simple dataset analysis using AI tools (text classification or word frequency).
3. Mini lab tasks to test knowledge of the use of online AI platforms (Colab/Jupyter) for small NLP or data problems.
4. Case study analysis like AI in Defence or Sanskrit language processing.
5. Group presentation on AI applications: cultural preservation OR strategic defence.
6. Mini-project like proposing and demonstrating a small AI application with a report (e.g., Sanskrit text tagging, defence trend prediction).

Credits - 3
Hours - 45

SEC 9: Introduction to Geographic Information Systems (GIS)

Course Objectives:

1. To introduce the fundamentals of GIS concepts, tools and applications.
2. To train students in handling spatial datasets and basic mapping techniques.
3. To apply GIS to Sanskrit studies (heritage mapping, cultural geography) and Defence studies (strategic geography, logistics).
4. To develop critical skills in spatial data analysis and visualisation.
5. To understand ethical and policy dimensions of geospatial data use.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the core principles and components of GIS.
2. Use GIS software (QGIS/ArcGIS) for basic map-making and analysis.
3. Handle spatial data (raster/vector) and perform simple geospatial operations.
4. Apply GIS to case studies in Sanskrit cultural heritage and Defence geography.
5. Critically assess ethical and strategic issues in geospatial technologies.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 9	Introduction to Geographic Information Systems (GIS)	03	0	0	03

Details of Course:

Unit I Fundamentals of GIS. **Credit 1**

- Definition, scope and applications of GIS.
- Key concepts: spatial data, raster vs. vector, layers.
- Coordinate systems and map projections.
- GIS in cultural studies (heritage mapping) and defence.

Unit II GIS Tools and Data Sources. **Credits 1**

- Introduction to QGIS/ArcGIS environment.
- Sources of geospatial data: Survey of India maps, OpenStreetMap, satellite imagery.
- Data formats: shapefiles, GeoTIFF, KML.
- Basics of data collection: GPS, mobile mapping apps.

Unit III Spatial Analysis and Applications. **Credit 1**

- Spatial queries: buffering, overlay, proximity analysis.
- Mapping trade routes, temple sites and cultural landscapes in Sanskrit heritage.
- Defence applications: terrain analysis, logistics mapping, border studies.
- Practical exercise: create a thematic map using open datasets.

Unit IV Visualisation, Ethics and Case Studies. **Credits 1**

- Cartographic principles: symbology, labeling, legends.
- Interactive maps and story maps.
- Ethical issues: data privacy, security risks, open data debates.
- Mini-project: Sanskrit (heritage sites) OR Defence (strategic geography) mapping exercise.

Essential/Recommended Readings/Texts:

1. Burrough, P. A., & McDonnell, R. A. (2015). *Principles of geographical information systems*. Oxford University Press.
2. Heywood, I., Cornelius, S., & Carver, S. (2011). *An introduction to geographical information systems*. Pearson.
3. Longley, P., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). *Geographic information science and systems*. Wiley.
4. Sherman, G. (2017). *The geospatial desktop: Open source GIS & mapping with QGIS*. Locate Press.
5. OpenStreetMap Documentation. https://learnosm.org

Additional Readings:

1. Tomlinson, R. (2019). *Thinking about GIS: Geographic information system planning for managers*. ESRI Press.
2. ESRI Training Resources. https://www.esri.com/training.
3. QGIS Documentation. https://docs.qgis.org.
4. Defence & Security Applications of GIS (NATO & UN case studies, online reports).
5. UNESCO Cultural Heritage Mapping Guidelines.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Quizzes on basics of GIS concepts, raster/vector, coordinate systems.
2. Lab assignment on importing spatial datasets into QGIS/ArcGIS.
3. Practical exercise on creating a thematic map (e.g., temple sites, defence logistics)
4. Group presentation on case studies of GIS in Sanskrit OR Defence contexts.
5. Visualization task on designing and submitting a story map or interactive map.
6. Mini-projects on independent analysis using GIS tools (heritage mapping OR defence application).

Credits - 3
Hours - 45

SEC 10: Statistics with R

Course Objectives:

1. To equip students with practical skills in handling and analysing data using R software.
2. To enable understanding of basic statistical methods relevant to humanities and defence studies research.
3. To train students in data cleaning, summarisation and visualisation for effective presentation.
4. To introduce regression and simple modelling for applied problem-solving.
5. To promote digital literacy by using open-source software for real-world academic projects.

Learning Outcomes:

After the completion of the course, the students will:

1. Import, clean and manipulate datasets in **R**.
2. Apply descriptive statistics for summarising datasets.
3. Use loops and functions for simple tasks in R.
4. Create basic and customised visualisations (charts, graphs, plots).
5. Perform introductory regression analysis and interpret results in applied contexts (e.g., Sanskrit textual corpora, Defence datasets).
6. Apply R skills to small projects in Sanskrit (text frequency, word analysis) and Defence Studies (casualty trends, resource data).

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 10	Statistics with R	03	0	0	03

Details of Course:

Unit I Introduction to R and Data Handling. **Credit 1**

- Installing and navigating R & RStudio (workspace, packages, file handling).
- Data types and structures: vectors, factors, lists, data frames.
- Importing datasets (CSV, Excel, text).
- Small practice: frequency count of words in a Sanskrit passage.

Unit II Data Manipulation and Programming Basics. **Credit 1**

- Data wrangling with dplyr: select, filter, arrange, mutate, summarise.
- Programming fundamentals: conditionals, loops, creating simple functions.
- File handling: reading/writing datasets in R.
- Practice dataset: simple analysis from defence expenditure reports.

Unit III Descriptive Statistics and Data Cleaning. **Credit 1**

- Descriptive statistics: mean, median, variance, skewness, five-number summary.
- Handling missing data, basic data cleaning.

- Practical examples: summarising Sanskrit text features or small defence data series

Unit IV Data Visualisation and Regression. Credit 1

- Creating plots: bar, pie, histogram, boxplot, scatterplot (ggplot2).
- Correlation and simple regression: assumptions and interpretation.
- Mini-project: analyse and visualise a small dataset (student-chosen: Sanskrit or Defence context).
- Presentation of findings with visuals and short report.

Essential/Recommended Readings/Texts:

1. Field, A., Miles, J., & Field, Z. (2012). *Discovering statistics using R*. SAGE. (Indian reprint, 2022)
2. Wickham, H., Grolemund, G., et al. (2017). *R for data science: Import, tidy, transform, visualize and model data*. O'Reilly.
3. Sekhar, S. R. M., et al. (2017). *Programming with R*. Cengage Learning India.
4. Gardener, M. (2018). *Beginning R: The statistical programming language*. Wiley & Sons.
5. Verzani, J. (n.d.). *SimpleR – Using R for introductory statistics*. Retrieved September 17, 2025, from [insert URL]
6. Websites / Tools:
   - CRAN. https://cran.r-project.org/
   - RStudio. https://rstudio.com/products/rstudio/download/
   - R-Statistics Guide. http://r-statistics.co

Additional Readings:

1. Dalgaard, P. (2008). *Introductory statistics with R*. Springer.
2. Crawley, M. J. (2012). *The R book* (2nd ed.). Wiley.
3. Kabacoff, R. I. (2015). *R in action: Data analysis and graphics with R*. Manning Publications.
4. Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2018). *Basic econometrics* (5th ed.). McGraw Hill India.
5. Chongsuvivatwong, V. *Analysis of epidemiological data using R and Epicalc*. [Publisher not specified].
6. Seefeld, K., & Linder, E. *Statistics using R with biological examples*. [Publisher not specified].
7. **Datasets / Repositories for Practice:**
8. ProwessIQ (CMIE). https://prowessiq.cmie.com
9. World Bank Indicators. https://data.worldbank.org/indicator
10. Datasets / Repositories for Practice:
    - ProwessIQ (CMIE): https://prowessiq.cmie.com
    - World Bank Indicators: https://data.worldbank.org/indicator

Continuous Assessment:

The assessment should be based on any four of the following:

1. Lab Exercises like regular practical tasks: importing datasets, cleaning data, creating simple plots in R.
2. Short Quizzes for quick checks on R commands, syntax and interpretation of output.

3. Script Submission where students submit well-commented R scripts for specific problems (data manipulation, descriptive stats, visualisation).
4. Mini Assignments mainly application-based: e.g., word frequency in Sanskrit texts, defence expenditure data trends, World Bank datasets.
5. Group Activity/Presentation where small teams analyse a dataset and present visualisations + findings.
6. Mini-Project/Report or individual project using R (dataset of choice), with code, charts and 3–4-page interpretation.

Credits – 2
Hours - 30

SEC 11: Philosophical Literature and Scientific Thought in Sanskrit

Course Objectives:

1. To explore core philosophical schools and scientific contributions documented in Sanskrit texts.
2. To understand key concepts from Vedanta, Nyaya, Ayurveda, astronomy, and engineering.
3. To develop skills in interpreting ancient Sanskrit literature with modern relevance.
4. To analyze the role of Sanskrit in preserving India's intellectual heritage.

Learning Outcomes:

1. Explain core philosophical and scientific ideas in Sanskrit texts.
2. Interpret original texts with contextual understanding.
3. Relate ancient wisdom to contemporary challenges.
4. Appreciate the interdisciplinary scope of Sanskrit literature.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 11	Philosophical Literature and Scientific Thought in Sanskrit	03	0	0	03

Details of Course:

Unit I Foundations of Sanskrit Thought.

- Overview of major philosophical systems: Vedanta, Nyaya, Sankhya, Yoga
- Role of Sanskrit in ancient science and philosophy
- Selected readings: *Bhagavad Gita*, *Tattvabodha*, *Rigveda* excerpts

Unit II Philosophical and Logical Texts.

- Concepts: Brahman, Atman, Moksha, Pramana
- Selected texts: *Upanishads*, *Brahma Sutras*, *Nyaya Sutras*, *Yoga Sutras*
- Logical reasoning and metaphysics in classical texts

Unit III Science and Medicine in Sanskrit.

- Contributions to mathematics and astronomy: *Aryabhatiya*, *Brahmasphutasiddhanta*
- Fundamentals of Ayurveda: *Charaka Samhita*, *Sushruta Samhita*
- Scientific vocabulary and methods in Sanskrit

Unit IV Technology, Heritage, and Modern Relevance.

- Ancient engineering and architecture: *Vastu Shastra*, *Yajnavalkya Smriti*
- Contemporary relevance of Sanskrit knowledge
- Case studies on digital archiving, sustainability, and education

Essential/Recommended Readings/Texts:

1. *Bhagavad Gita* (with commentary)
2. *Upanishads* (selected)
3. *Aryabhatiya* by Aryabhata
4. *Charaka Samhita* (selected chapters)
5. Paul Deussen – *The Philosophy of the Upanishads*
6. D.P. Chattopadhyaya – *Science and Society in Ancient India*

Credits – 2
Hours - 30

SEC 12: Sanskrit Texts on Law and Society

Course Objectives:

1. To introduce students to the legal, political, and social thought embedded in classical Sanskrit texts.
2. To examine the evolution of ancient Indian legal systems, ethics, and social duties.
3. To analyze the roles of dharma, governance, and justice through core Sanskrit scriptures.

Learning Outcomes:

After the completion of the course, the students will:

1. Interpret foundational Sanskrit texts relating to law, society, and governance.
2. Evaluate the philosophical and ethical dimensions of ancient Indian legal systems.
3. Analyze the historical development of justice, statecraft, and social structure in classical literature.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 12	Sanskrit Texts on Law and Society	03	0	0	03

Details of Course:

Unit I Introduction to Sanskrit Law and Society.

- Law and Social Order in Ancient India.
- Role of Vedas and post-Vedic texts in framing societal norms.
- The concept of *varna-dharma* and duties of individuals.
  - Key Readings: *Manusmriti* (selected chapters), *Arthashastra* (overview)

Unit II Dharmashastra and Social Ethics.

- Principles of Dharma and Legal Duties.
- Marriage, inheritance, conduct, and penalties as discussed in *Dharmashastra* literature.
- Ethics and Morality in Texts.
- Moral obligations of rulers and citizens.
  - Key Readings: *Manusmriti*, *Yajnavalkya Smriti* (selected excerpts)

Unit III Kautilya's Arthashastra: Governance and Justice.

- Statecraft and Legal Administration.
- Duties of the king, espionage, judicial systems, and punishment.
- Political Ethics and Legal Institutions.
- Role of law in state stability and social welfare.

- Key Readings: *Arthashastra* (selected chapters)

Unit IV Judicial Systems and Legal Procedures in Sanskrit Texts.

- Structure of Ancient Courts and Legal Officers.
- Types of courts, roles of judges, legal documentation.
- Conflict Resolution and Punishment.
- Trial processes, arbitration, and legal codes.
  - Key Readings: *Naradasmriti*, *Dharma Sutras* (selections)

Essential/Recommended Readings/Texts:

1. *Manusmriti* – with commentary (various editions)
2. *Yajnavalkya Smriti* – translated and annotated versions
3. *Arthashastra* by Kautilya – R.P. Kangle (translation and analysis)
4. *History of Dharmasastra* by P.V. Kane (selected volumes)
5. *Naradasmriti* and *Dharma Sutras* (translated editions)

Credits – 2
Hours - 30

SEC 13: Introduction to Artificial Intelligence

Course Objectives:

1. To introduce the fundamentals and real-world applications of Artificial Intelligence.
2. To develop a basic understanding of AI concepts like machine learning, data, and automation.
3. To encourage critical thinking about ethical, societal, and interdisciplinary aspects of AI.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the core concepts, history, and evolution of AI and its subfields.
2. Identify and explain real-life applications of AI in different sectors.
3. Analyze the ethical, social, and interdisciplinary implications of AI technologies.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 13	Introduction to Artificial Intelligence	03	0	0	03

Details of Course:

Unit I Introduction to AI

- What is Artificial Intelligence?
- A brief history and evolution of AI
- Differences between human and artificial intelligence
- Types of AI: Narrow AI, General AI, and Super AI

Unit II Foundations of AI

- Data, algorithms, and the logic of AI systems
- Rule-based vs. learning-based AI
- Overview of machine learning and neural networks (conceptual level)
- Introduction to automation and intelligent agents

Unit III Applications of AI

- AI in major sectors:
  - Healthcare: diagnostics, drug discovery
  - Education: personalized learning, grading systems
  - Business: automation, predictive analytics
  - Governance: AI in public services
  - Everyday AI tools: voice assistants (e.g., Siri, Alexa), recommendation engines (e.g., Netflix, Amazon)

Unit IV Ethics and Challenges.

- Ethical concerns in AI:
  - Bias and discrimination.
  - Privacy and surveillance.
  - Job displacement and automation.
- Introduction to responsible and trustworthy AI principles.
- AI regulations and policy considerations.

Unit V The Future of AI.

- AI and emerging technologies:
  - Robotics.
  - Internet of Things (IoT)
  - Autonomous vehicles.
- Interdisciplinary nature of AI (AI and law, psychology, environment, etc.) • Opportunities and risks in future AI developments

Essential/Recommended Readings/Texts:

1. *Artificial Intelligence: Basics and Applications* by B. S. R. Anjaneyulu, M. S. R. Anjaneyulu.
2. *Artificial Intelligence and Soft Computing* by Amit Kumar, R. C. Joshi
3. *Foundations of Artificial Intelligence* by V. K. Jain
4. *Ethics in Artificial Intelligence* by Rajendra Akerkar

Credits – 2
Hours - 30

SEC 14: Introduction to Linguistics

Course Objectives:

1. To introduce students to the fundamental concepts and subfields of linguistics.
2. To explore the structure, meaning, and use of language in different contexts.
3. To develop skills in analyzing linguistic data using basic theoretical frameworks.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand key linguistic concepts and subfields including phonetics, morphology, syntax, semantics, and pragmatics.
2. Analyze different forms of language (spoken, written, signed) using basic linguistic frameworks.
3. Appreciate the social, cultural, and functional dimensions of language use and diversity.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 14	Introduction to Linguistics	03	0	0	03

Details of Course:

Unit I Introduction to Linguistics

- Definition and scope of linguistics
- Branches of linguistics**:**
    - Phonetics and Phonology
    - Morphology
    - Syntax
    - Semantics
    - Pragmatics
- Relationship between language, culture, and society

Unit II Phonetics, Phonology, and Morphology

- Phonetics: Articulatory and acoustic properties of speech sounds
- Phonology: Phonemes, minimal pairs, intonation, stress patterns
- Morphology: Morphemes, inflection, derivation, word formation (affixation, compounding)

Unit III Syntax and Semantics

- Syntax: Sentence structures, phrase structure rules, types of sentence constructions
- Semantics: Meaning at the word and sentence level, types of meaning (literal, figurative)
- Pragmatics: Language in context, speech acts, implicature

Unit IV Language in Society and Linguistic Diversity.

- Sociolinguistics:
    - Language variation across regions, classes, genders, and communities.
- Dialects, pidgins, and creoles.
- Multilingualism and code-switching.
- Language endangerment and preservation.

Essential/Recommended Readings/Texts:

1. *An Introduction to Language* – Victoria Fromkin, Robert Rodman, and Nina Hyams
2. *The Cambridge Encyclopedia of Language* – David Crystal
3. *Linguistics: An Introduction to Language and Communication* – Adrian Akmajian et al.
4. *Sociolinguistics: An Introduction to Language and Society* – Peter Trudgill

Credits - 2
Hours - 30

SEC 15: Introduction to Indian Knowledge Systems

Course Objectives:

1. To introduce students to the key concepts and foundations of Indian Knowledge Systems (IKS).
2. To explore traditional Indian approaches to knowledge and their interdisciplinary relevance.
3. To understand how Indian philosophy, science, and cultural practices are integrated into holistic knowledge systems.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the core components of IKS, including philosophy, sciences, and arts.
2. Appreciate the holistic and integrative approach of IKS in historical and modern contexts.
3. Apply foundational IKS principles to contemporary issues and interdisciplinary studies.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 15	Introduction to Indian Knowledge Systems	03	0	0	03

Details of Course:

Unit I Introduction to Indian Knowledge Systems

- Definition, features, and scope of IKS
- Sources of knowledge: Vedas, Upanishads, Smritis, Puranas
- Oral traditions and traditional methods of learning (Guru-Shishya parampara, memorization, recitation)

Unit II Indian Philosophy and Epistemology

- Overview of Indian philosophical schools: Vedanta, Samkhya, Yoga, Nyaya, Vaisheshika,
- Mimamsa, Buddhism, Jainism
- Indian theories of knowledge (Pramanas): Perception, inference, verbal testimony, comparison, postulation, non-apprehension
- Practical insights from philosophy: Ethics, self-knowledge, mindfulness

Unit III Indian Scientific Knowledge

- Key contributions in:
    - Ayurveda (Charaka, Sushruta)
    - Mathematics (Aryabhata, Bhaskara)
    - Astronomy (Varahamihira, Brahmagupta)
- Science and spirituality: Harmony between empirical and metaphysical knowledge

- Contemporary relevance of ancient Indian sciences

Unit IV Indian Arts, Culture, and Knowledge Systems.

- Performing arts (music, dance, theatre) as carriers of knowledge.
- Architecture, sculpture, painting, and their symbolic meanings.
- Integration of art, ritual, and education in knowledge transmission.

Essential/Recommended Readings/Texts:

1. *Indian Knowledge Systems* – K.K. Aziz.
2. *The Concept of Indian Knowledge Systems* – Subhash Kak.
3. *Science and Technology in Ancient India* – S.P. Gupta.
4. *Ayurveda and the Mind* – David Frawley.
5. *Indian Art and Culture* – Nitin Singhania.

Credits – 2
Hours - 30

SEC 16: Communication Skills

Course Objectives:

1. To develop effective verbal, non-verbal, and written communication skills.
2. To improve interpersonal and professional communication competence.
3. To master business writing and impactful presentation techniques.
4. To utilize digital communication tools with proper online etiquette.

Learning Outcomes:

After the completion of the course, the students will:

1. Communicate confidently in personal, academic, and professional settings.
2. Write clear and professional business communications such as emails and reports.
3. Deliver structured and engaging presentations.
4. Use digital platforms effectively while following appropriate etiquette and cross-cultural norms.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 16	Communication Skills	03	0	0	03

Details of Course:

Unit I Basics of Communication.

- Types of Communication: Verbal, Non-verbal, Written
- Communication Models and Processes
- Barriers to Effective Communication and Overcoming Them

Unit II Interpersonal Communication

- Active Listening and Feedback
- Assertiveness and Empathy
- Building Rapport and Managing Relationships

Unit III Professional Communication

- Business Writing: Emails, Reports, Memos
- Presentation Skills: Structure, Delivery, Visual Aids
- Telephonic and Virtual Communication Etiquette

Unit IV Digital Communication

- Digital Tools: Email, Social Media, Video Conferencing
- Online Étiquette (Netiquette)
- Cross-cultural Communication in a Digital World

Essential/Recommended Readings/Texts:

1. *Effective Communication Skills* by John Nielsen

2. *The Art of Public Speaking* by Dale Carnegie
3. *Business Communication Today* by Courtland L. Bovee and John V. Thill (optional supplementary)

Credits – 2
Hours - 30

SEC 17: Environmental Consciousness and Sustainable Living

Course Objectives:

1. To create awareness about current environmental challenges and sustainability concepts.
2. To encourage eco-conscious behavior and responsible lifestyle practices.
3. To explore ecological principles through Indian traditions and global frameworks.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify and explain key environmental issues affecting the planet.
2. Reflect on the ethical, cultural, and personal responsibilities in environmental conservation.
3. Practice and promote sustainable living through informed daily choices.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
SEC 17	Environmental Consciousness and Sustainable Living	03	0	0	03

Details of Course:

Unit I Introduction to Environmental Awareness.

- Definitions of environment, ecology, and sustainability
- Interdependence of humans and nature
- Principles of environmental stewardship

Unit II Major Environmental Issues

- Climate change, pollution (air, water, soil), and biodiversity loss
- Environmental impacts on health, agriculture, and water security
- Urbanization and resource depletion

Unit III Traditional and Indigenous Environmental Ethics

- Ecological wisdom in Indian traditions (e.g., Bishnoi community, Chipko Movement)
- Sacred groves, rivers, and ecocentric festivals
- Indigenous knowledge systems and conservation ethics

Unit IV Sustainable Living and Green Practices

- Waste segregation, minimalism, and carbon footprint reduction
- Eco-friendly alternatives and green consumerism
- Role of individuals, youth, and local communities in environmental action

Unit V Environmental Policies and Global Efforts

- United Nations Sustainable Development Goals (SDGs)

- Paris Agreement, COP initiatives
- Indian environmental laws and regulatory bodies (e.g., MoEFCC, NGT)
- Role of media, NGOs, and technology in environmental awareness

Essential/Recommended Readings/Texts:

1. *Environmental Consciousness as Reflected in Indian Culture* – C.P. Srivastava
2. *Religiosity, Spirituality or Environmental Consciousness?* – Pravin Chavan & Anil Sharma
3. *Environment Consciousness in Ancient India* – Dr. Kaushik Acharya
4. *Sustainable Living Through India's Traditional Practices* – Dr. Jyoti Bajpai

Credits – 2
Hours - 30

SEC 18: Sanskrit in Ancient Indian Science and Technology

Course Objectives:

1. To explore the role of Sanskrit as a medium for scientific and technological knowledge in ancient India.
2. To understand key contributions in fields like mathematics, astronomy, medicine, and engineering through Sanskrit texts.
3. To develop basic skills in interpreting scientific content within Sanskrit literature.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify major scientific disciplines and concepts preserved in Sanskrit texts.
2. Analyze selected Sanskrit passages related to ancient Indian science and technology.
3. Appreciate the historical significance and modern relevance of these traditional knowledge systems.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 18	Sanskrit in Ancient Indian Science and Technology	02	0	0	02

Details of Course:

Unit I Introduction to Sanskrit in Ancient Indian Science.

- Role of Sanskrit in documenting early Indian science.
- Scientific ideas in Vedic and post-Vedic literature.
- Overview of knowledge systems in the Rigveda and Atharvaveda.

Unit II Astronomy and Mathematics in Sanskrit Texts.

- Foundations of Jyotisha (Astronomy) and Ganita (mathematics)
- Key figures: Aryabhata, Brahmagupta, Bhaskara.
- Concepts of planetary motion, Zero, Algebra, Trigonometry.

Unit III Ayurveda and Medicine in Sanskrit.

- Fundamentals of Ayurveda in classical Sanskrit literature.
- Anatomy, diagnosis, surgery, and pharmacology.
- Principles of holistic healing and doshas (Vata, Pitta, Kapha)

Unit IV Engineering and Architecture in Ancient India.

- Sanskrit texts on Vastu (architecture), metallurgy, and water management
- Town planning, building design, temple architecture.
- Ancient irrigation and construction techniques.

Essential/Recommended Readings/Texts:

1. *Science and Technology in Ancient India* by S.P. Gupta.

2. *Indian Mathematics and Astronomy: Some Landmarks* by S. Balachandra Rao.
3. *Ayurveda: The Science of Self-Healing* by Dr. Vasant Lad.
4. *The Vastu Vidya* (various translations)
5. *History of Science in India* (Vol. I & II), Ramkrishna Bhattacharya (Ed.)
6. *Vastu Shastra*.
7. *Yajnavalkya Smriti* (engineering references)

Credits – 2
Hours - 30

SEC 19: Academic Writing

Course Objectives:

1. To introduce students to the principles and techniques of academic writing.
2. To enhance students' ability to organize and present ideas clearly and effectively.
3. To develop students' skills in writing research papers, essays, and other academic texts.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the structure and conventions of academic writing.
2. Develop skills to write clear, coherent, and well-argued academic papers.
3. Apply research and citation methods in academic writing.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 19	Academic Writing	02	0	0	02

Details of Course:

Unit I Introduction to Academic Writing.

- Purpose and importance of academic writing.
- Key features of academic writing: objectivity, clarity, coherence.
- Types of academic writing: essays, research papers, reports.

Unit II Structure of Academic Papers.

- Organizing ideas: Introduction, Body, and Conclusion.
- Writing clear thesis statements and arguments.
- Paragraph structure and cohesion.

Unit III Research and Referencing.

- Conducting academic research.
- Understanding sources: Primary vs. Secondary.
- Citation styles: APA, MLA, Chicago, etc.

Unit IV Writing and Revising.

- Drafting and revising: Clarity, Coherence, and Flow.
- Proofreading and editing techniques.
- Avoiding plagiarism and maintaining academic integrity

Essential/Recommended Readings/Texts:

1. *The Elements of Style* by William Strunk Jr. and E.B. White.
2. *Writing with Style: Conversations on the Art of Writing* by John R. Trimble.

3. *They Say / I Say: The Moves That Matter in Academic Writing* by Gerald Graff and Cathy Birkenstein.
4. *The Craft of Research* by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams.

Credits – 2
Hours - 30

SEC 20: Indian Poetics

Course Objectives:

1. To introduce students to the key concepts and principles of Indian poetics.
2. To explore classical Indian theories of literature and aesthetics.
3. To examine the application of Indian poetic principles in traditional and modern texts.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the foundational concepts of Indian poetics and aesthetics.
2. Analyze and interpret classical texts using Indian poetic theories.
3. Apply Indian poetics to contemporary literary analysis.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 20	Indian Poetics	02	0	0	02

Details of Course:

Unit I Introduction to Indian Poetics.

- Overview of Indian poetics and its history.
- Key concepts:
    - Rasa (aesthetic experience)
    - Dhvani (suggestion)
    - Alamkara (figures of speech)
- The role of poetry in Indian culture.

Unit II Theories of Rasa and Dhvani.

- Rasa theory: The eight (or nine) emotions and their role in poetic experience.
- Dhvani: Suggestion and implication in literature
- Key texts:
    - Bharata's *Natya Shastra*
    - Anandavardhana's *Dhvanyaloka*

Unit III Alamkara and Vakrokti .

- Alamkara: Figures of speech and their aesthetic significance.
- Vakrokti: The theory of 'twisted expression' in poetry.
- Classical examples of Alamkara in Sanskrit literature.

Unit IV Indian Poetics in Modern Context.

- Application of traditional theories to modern Indian literature.
- Comparative analysis of Indian poetics with Western literary theories.
- Case studies:
    - Rabindranath Tagore
    - A.K. Ramanujan

- Contemporary poets

Essential/Recommended Readings/Texts:

1. *Natya Shastra* by Bharata Muni
2. *Dhvanyaloka* by Anandavardhana
3. *The Art of Indian Poetry* by S.K. De
4. *Indian Poetics: A Reader* by C. V. Vaidya
5. *Sanskrit Poetics: An Overview* by P. S. Sitaramayya

Credits – 2
Hours - 30

SEC 21: Heritage Studies

Course Objectives:

1. To introduce students to the concept and significance of heritage in the global and Indian context.
2. To explore the preservation, interpretation, and management of cultural and natural heritage.
3. To understand the role of heritage in shaping identity, memory, and cultural continuity.

Learning Outcomes:

After the completion of the course, the students will:

1. Gain an understanding of the concept of heritage and its various forms (tangible, intangible, natural).
2. Analyze the significance of heritage preservation in contemporary society.
3. Develop skills in heritage management and the ethical considerations involved.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 21	Heritage Studies	02	0	0	02

Details of Course:

Unit I Introduction to Heritage Studies.

- Definition and types of heritage: tangible, intangible, cultural, and natural.
- History of heritage studies and its significance in modern societies.
- UNESCO's role in heritage conservation: World Heritage Sites.

Unit II Heritage Preservation and Management.

- Techniques of heritage preservation: restoration, conservation, and documentation.
- Ethical dilemmas in heritage preservation.
- Case studies of heritage management in India and globally.

Unit III Intangible Heritage and Cultural Memory.

- Concept of intangible heritage: traditions, rituals, oral history, and practices.
- The importance of oral traditions and their preservation.
- The role of museums and archives in preserving cultural memory.

Unit IV Heritage and Identity.

- The relationship between heritage and national/cultural identity.
- Heritage as a tool for tourism and economic development.
- Challenges in managing heritage in a post-colonial world.

Essential/Recommended Readings/Texts:

1. *The Heritage of India* by L.P. Sharma

2. *Heritage and Sustainable Development* by Peter Howard
3. *Cultural Heritage and Human Rights* by V. T. R. P. Sinha
4. *Heritage and Identity: Shaping the World* by L. Smith
5. *The Economics of Heritage: A Study of the Conservation and Management of Cultural Heritage* by Robert J. S.

Credits – 2
Hours - 30

SEC 22: Introduction to World Literature

Course Objectives:

1. To introduce major works, genres and movements across world literatures.
2. To explore cultural, historical and thematic connections in global texts.
3. To develop critical reading and comparative analysis skills.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify key authors and texts from various regions and periods.
2. Compare themes and styles across literary traditions.
3. Analyze literature using global and cultural perspectives.
4. Understand literature's role in reflecting and shaping societies.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 22	Introduction to World Literature	02	0	0	02

Details of Course:

Unit I Foundations of World Literature.

- Concepts of world literature and cross-cultural storytelling.
- Key Texts: The Epic of Gilgamesh, The Iliad, The Odyssey, The Ramayana.
- Themes: Myth, the hero's journey, oral tradition.

Unit II Classical and Medieval Literatures.

- Literary evolution through religious and philosophical epics.
- Key Texts: The Divine Comedy, The Canterbury Tales, The Tale of Genji, The Bhagavad Gita.
- Themes: Morality, spirituality, cultural identity.

Unit III Modernism and Global Movements.

- Rise of individualism, disillusionment andpostcolonial voices.
- Key Texts: The Metamorphosis, Ulysses, Things Fall Apart, The Great Gatsby.
- Themes: Fragmentation, alienation, critique of tradition.

Unit IV Contemporary Global Voices.

- Multiculturalism, migration andidentity in globalized literature.
- Key Texts: One Hundred Years of Solitude, Oscar Wao, Persepolis, Season of Migration to the North.
- Themes: Hybridity, postcolonialism, modern identity.

Essential/Recommended Readings/Texts:

1. Boehmer, E. (2005). Postcolonial literature: The empire writes back. Oxford University Press.
2. Campbell, J. (2008). The hero with a thousand faces. New World Library.
3. Damrosch, D. (Ed.). (2009). World literature: A reader. Routledge.
4. Lawall, S. (Ed.). (2012). The Cambridge companion to world literature. Cambridge University Press.
5. Puchner, M. (Ed.). (2018). The Norton anthology of world literature (4th ed.). W. W. Norton & Company.

Credits – 2
Hours - 30

SEC 23: Sanskrit Lexicography

Course Objectives:

1. To introduce the history and development of Sanskrit lexicography.
2. To explore principles and methods in dictionary compilation.
3. To understand word formation, etymology, and semantics in Sanskrit.
4. To develop skills in using traditional and digital lexical resources.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the evolution and significance of Sanskrit lexicography.
2. Analyze Sanskrit words structurally and etymologically.
3. Apply research techniques for accurate interpretation of texts.
4. Use tools like Sanskrit WordNet for advanced lexical analysis.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 23	Sanskrit Lexicography	02	0	0	02

Details of Course:

Unit I Introduction to Sanskrit Lexicography.

- Overview: Historical development and key milestones in Sanskrit dictionaries.
- Skills: Methodology of lexicon compilation; knowledge of seminal works.
- Key Readings:
  - *Monier-Williams Dictionary* (Intro & Entries)
  - *Amarakosha* (Overview)
- Discussion: Influence of *Amarakosha*, role in translation.

Unit II Lexical Structure & Etymology.

- Overview: Roots, affixes, compounds; word formation and derivation.
- Skills: Etymological analysis of Sanskrit vocabulary.
- Key Readings:
  - *Nirukta* by Yaska.
  - *Mahabhashya.* (Etymological sections)
- Discussion: Derivation, compounding andancient etymology.

Unit III Comparative Lexicography & Digital Tools.

- Overview: Traditional vs. modern lexicons; digital resources.
- Skills: Use of Sanskrit WordNet; critical comparison of lexicons.
- Key Readings:
  - Articles on Digital Sanskrit Lexicons.
  - Sanskrit WordNet documentation.

- Discussion: Benefits/challenges of digitization; comparison of tools.

Unit IV Advanced Applications.

- Overview: Lexicographical research in textual interpretation and translation.
- Skills: Deep analysis of texts using lexicons.
- Key Readings:
    - *Vachaspatyam* (Selections)
    - Research papers on advanced applications.
- Discussion: Challenges in translating classical Sanskrit; lexical precision.

Essential/Recommended Readings/Texts:

1. Monier-Williams, M. (1899). *A Sanskrit–English dictionary*. Oxford University Press.
2. Amarasiṃha. *Amarakośa* [Lexicon]. (Various editions).
3. Yāska. *Nirukta* [Treatise on etymology]. (Various editions).
4. Patañjali. *Mahābhāṣya* [Commentary on Pāṇini's Aṣṭādhyāyī]. (Various editions).
5. Vācaspati. *Vācaspatyam* [Comprehensive Sanskrit lexicon]. (Various editions).
6. Research on digital lexicons. [Scholarly and digital resources on modern Sanskrit lexicography].
7. Indian Institute of Technology, Bombay. *Sanskrit WordNet*. Retrieved from.

Credits – 2
Hours - 30

SEC 24: Sanskrit Manuscriptology and Textual Criticism

Course Objectives:

1. To provide an overview of Sanskrit manuscript traditions, classifications andpreservation methods.
2. To introduce the principles and practices of textual criticism in the Indian scholarly tradition.
3. To train students in manuscript editing techniques using both traditional and modern tools.
4. To explore complex textual issues, including emendation, variant readings andcritical editions.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify and classify Sanskrit manuscripts and scripts.
2. Apply methods of textual criticism to reconstruct and interpret Sanskrit texts.
3. Edit and critically prepare texts using established philological techniques.
4. Evaluate manuscript variants and textual traditions through scholarly methods.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 24	Sanskrit Manuscriptology and Textual Criticism	02	0	0	02

Details of Course:

Unit I Introduction to Sanskrit Manuscriptology.

- **Themes**: History and tradition of Sanskrit manuscript culture, palm-leaf and birch-bark manuscripts, types of manuscripts (literary, philosophical, ritual)
- **Skills**: Classifying manuscripts, recognizing scripts (Sharada, Grantha, Modi, Devanagari, etc.), understanding transmission and scribal practices.

Unit II Principles of Textual Criticism.

- **Themes**: Fundamentals of textual criticism-collation, recension, emendation, interpolation.
- **Skills**: Detecting scribal errors, preparing stemmata (genealogical trees of manuscripts), understanding Lachmannian and Indian methods.

Unit III Methodology of Sanskrit Manuscript Editing.

- **Themes**: Practical steps in manuscript editing: collation, transcription, annotation, apparatus creation.
- **Skills**: Paleographical analysis, digital tools for editing, layout of critical editions.

Unit IV Advanced Issues in Manuscriptology and Criticism.

- **Themes**: Scholarly debates on authenticity, textual authority, conservation ethics anddigital humanities in manuscript studies.
- **Skills**: Evaluating conflicting variants, preparing editorial notes, understanding manuscript cultures in other traditions for comparative insight.

Essential/Recommended Readings/Texts:

1. Kane, P. V. (1941). *The history of Sanskrit manuscripts.* Bhandarkar Oriental Research Institute.
2. Thomas, F. W. (1952). *The art of manuscript editing.* Oxford University Press.
3. Pandeya, R. C. (1972). *Textual criticism in Indian tradition*. Chowkhamba Sanskrit Series.
4. Burnell, A. C. (1878). *Indian paleography*. Trübner & Co.
5. Aziz, K. K. (1980). *Manuscripts and textual criticism in Sanskrit.* Oxford University Press.
6. Research articles from Journal of Oriental Research and Sanskrit Journal of Manuscriptology.

Credits - 2
Hours - 30

SEC 25: Environmental Studies

Course Objectives:

1. To introduce the multidisciplinary nature of environmental studies and its scope and importance.
2. To create awareness about the environment and the need for its protection.
3. To provide insight into the Vedic perspective on environment, including concepts of earth (prithvi), water (apah), air (vayu), ether (akasha), and mind (manas).
4. To explain the structure, function, and energy flow in ecosystems, including food chains, food webs, and ecological succession.
5. To explore the interaction between plants, animals, and humans, including the concept of sacrifice (yajna) and coordination among natural forces.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the basic concepts and scope of environmental studies.
2. Explain the structure and function of ecosystems and the flow of energy through food chains and food webs.
3. Identify natural resources and differentiate between renewable and non-renewable resources.
4. Appreciate the Vedic approach to environmental conservation and the interconnection between all natural powers.
5. Apply knowledge of ecosystems and environmental awareness in practical and societal contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 25	Environmental Studies	02	0	0	02

Details of Course:

Unit I Introduction to Environmental Studies. **Credit 1**

- Multidisciplinary nature of environmental studies.
- Scope, importance, and need for public awareness.
- Vedic approach to environment.
- Concept of Earth (prithvi), Water (apah), Air (vayu), Ether (akasha), and Mind (manas)

Unit II Ecosystem. **Credit 1**

- Definition and structure of ecosystem.
- Functions of ecosystems.
- Energy flow in an ecosystem: food chains, food webs, ecological succession.
- Animals, birds, and plants (oshadhi)

- Concept of sacrifice (yajna)
- Coordination between all natural powers.

Essential / Recommended Readings

1. Gourishankar Hirachand Ojha, Indian Ancient Script.
2. Padmakar Mishra, Indus Script and Other Indian Script.

Credits - 2
Hours - 30

SEC 26: Sanskrit Computational Tools - Basics

Course Objectives:

1. To introduce students to the Sanskrit language and its alphabets, words, and sentence structures.
2. To familiarize students with Sanskrit writing traditions, including Devanagari and Roman (IAST) scripts.
3. To provide an understanding of character encoding standards for Sanskrit and other languages (ASCII, ANSI, Unicode, UTF-8, UTF-16, UTF-32/UCS-4).
4. To train students in using digital tools for Sanskrit: typing software, online typing tools, voice typing, and mobile typing tools.
5. To introduce Sanskrit computational tools such as grammar tools, e-dictionaries, text preservation, search, and online indexing tools for Sanskrit texts.

Learning Outcomes:

After completion of the course, the students will:

1. Demonstrate familiarity with Sanskrit alphabets, words, and sentence formation.
2. Use various Sanskrit writing systems (Devanagari and Roman/IAST) effectively.
3. Understand character encoding systems and their application for Sanskrit digital texts.
4. Operate computational tools for typing, editing, and processing Sanskrit text.
5. Utilize online and offline resources for Sanskrit text preservation, search, and indexing.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 26	Sanskrit Computational Tools - Basics	01	01	0	02

Details of Course:

Unit I Introduction to Sanskrit Language. **Credit 1**

- Introduction to Sanskrit alphabets, words, and sentences.
- Sanskrit writing traditions: Devanagari, Roman (IAST)
- Character encoding standards: ASCII, ANSI, Unicode, UTF-8, UTF-16, UTF-32/UCS-4.

Unit II Sanskrit Language Unicode Typing and Computational Tools. **Credit 1**

- Typing software: Baraha, Pramukh.
- Online typing tools: Google Input Tools.
- Voice typing tools: Google Voice Typing.
- Mobile typing tools: Microsoft SwiftKey, Pramukh.
- Introduction to Sanskrit grammar tools, e-dictionaries, and online text indexing.
- Sanskrit text preservation and search tools.

Essential / Recommended Readings/Texts:

1. Tools developed by Computational Linguistics Group, Department of Sanskrit, University of Delhi – http://cl.sanskrit.du.ac.in
2. Tools developed by School of Sanskrit and Indic Studies, Jawaharlal Nehru University, New Delhi – http://sanskrit.jnu.ac.in

Credits - 2
Hours - 30

SEC 27: English Communication Skills

Course Objectives:

1. To develop students' translation skills from Sanskrit to English and Sanskrit to modern Indian languages.
2. To enhance comprehension and paragraph writing skills in Sanskrit.
3. To improve overall English communication, both oral and written.

Learning Outcomes:

After the completion of the course, the students will:

1. Translate texts accurately from Sanskrit to English and other modern Indian languages.
2. Understand and analyze Sanskrit passages through comprehension exercises.
3. Write coherent Sanskrit paragraphs and express ideas effectively in English.
4. Communicate effectively in English in academic and professional contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 27	English Communication Skills	01	01	0	02

Details of Course:

Unit I Translation.

- Sanskrit → English translation.
- Sanskrit → Modern Indian languages translation.
- Techniques of accurate and context-sensitive translation.

Unit II Comprehension and Paragraph Writing.

- Comprehension tests based on Sanskrit passages.
- Writing structured Sanskrit paragraphs.
- Improving written expression and clarity.

Essential/Recommended Readings/Texts:

1. Standard Sanskrit grammar and composition texts.
2. Selected translation manuals and guides for Sanskrit to English and Indian languages.

Credits - 2
Hours - 30

SEC 28: Yoga Practice - Beginner Level

Course Objectives:

1. To introduce students to basic Yogasanas for improving physical and mental health.
2. To provide practical training in sitting and supine postures.
3. To develop awareness of body alignment, balance, and relaxation techniques through yoga.

Learning Outcomes:

After the completion of the course, the students will:

1. Perform beginner-level Yogasanas correctly with proper alignment and breathing.
2. Understand the principles behind various yoga postures.
3. Experience improved flexibility, strength, and relaxation.
4. Apply yogic practices as preparation for meditation and stress management.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 28	Yoga Practice - Beginner Level	01	01	0	02

Details of Course:

Unit I Yogasana (Sitting Postures)

- Dandasana, Swastikasana, Padmasana, Vajrasana, Supta Vajrasana
- Kagasana, Utkatasana, Gomukhasana, Ushtrasana, Shashankasana
- Janusirasana, Paschimottanasana, Mandukasana, Utthana Mandukasana
- Vakrasana, Ardha Matsyendrasana, Marichyasana, Simhasana

Unit II Yogasana (Supine / Lying Postures)

- Pavanamuktasana, Utthana-padasana, Ardha Halasana, Halasana
- Setubandhasana, Sarvangasana, Matsyasana, Chakrasana, Shavasana

Essential/Recommended Readings/Texts:

1. Joshi, K.S.: *Yogic Pranayama*, Oriental Paperback, New Delhi.
2. Nagendra, H.R.: *The Art and Science of Pranayama*, Swami Vivekanand Yoga Prakashan, 2005, Bangalore.

Credits - 2
Hours - 30

SEC 29: Foundation Course: RLE-01 - Remedial Language (English)

Course Objectives:

1. To strengthen the basic foundations of spoken English.
2. To improve pronunciation, vocabulary, and sentence formation.
3. To develop confidence in oral communication.
4. To enhance listening skills for better comprehension.
5. To build basic writing skills for practical communication.

Learning Outcomes:

After completion of the course, students will be able to:

1. Speak simple English fluently and correctly.
2. Communicate basic ideas and thoughts effectively in English.
3. Recognize and correct common grammatical and pronunciation errors.
4. Demonstrate improved listening comprehension in conversational contexts.
5. Write short messages, emails, and responses using correct structure and vocabulary.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 29	Remedial Language (English)	1	0	1	2

Details of Course:

Unit I Fundamentals of Spoken English.

- Basic Grammar and Sentence Construction.
- Vocabulary Building Exercises.
- Pronunciation and Phonetics Practice.
- Common Expressions and Everyday Conversation.

Unit II Listening Skills and Comprehension.

- Active Listening Techniques.
- Understanding Tone, Accent, and Intonation.
- Listening and Responding Practice (audio clips and role-play)
- Identifying Key Ideas and Details.

Unit III Functional Communication.

- Introducing Oneself and Others.
- Asking and Answering Questions.
- Giving Directions, Requests, and Suggestions.
- Role-play for Common Real-life Situations (classroom, marketplace, workplace)

Unit IV Basic Writing Skills.

- Sentence and Paragraph Formation.

- Formal and Informal Writing.
- Short Emails, Notes, and Message Writing.
- Error Identification and Correction Practice.

Essential/Recommended Readings/Texts:

1. Swan, Michael. (1980). *Practical English Usage*. Oxford University Press.
2. Murphy, Raymond. (1985). *English Grammar in Use*. Cambridge University Press.
3. Thornbury, Scott. (2005). *How to Teach Speaking*. Pearson Education.
4. Harmer, Jeremy. (2007). *The Practice of English Language Teaching*. Pearson Longman.
5. Underhill, Adrian. (2010). *Sound Foundations: Learning and Teaching Pronunciation*. Macmillan.

Credits - 2
Hours - 30

SEC 30: Machine Translation: Tools and Techniques

Course Objectives:

1. Learn the origin and development of Machine Translation.
2. Gain a basic introduction to Machine Translation.

Learning Outcomes:

After completion of the course, students will be able to:

1. Understand theoretical aspects of Machine Translation.
2. Identify tools and techniques used in Machine Translation.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 30	Machine Translation: Tools and Techniques	02	0	0	02

Details of Course:

Unit I **Credit 1**

- Theoretical Concepts of Machine Translation
- Human vs Computer translation of languages
- Basics of Machine Translation
- Survey of Machine Translation Systems

Unit II **Credit 1**

- Tools and Techniques of Machine Translation
- Source vs Target Language

Essential/Recommended Readings/Texts:

1. Amba Kulkarli, (2002). *Machine translation activities in India: A survey*, Proceedings of workshop on survey on Research and Development of Machine Translation in Asian Countries, Thailand, May 13-14, 2002.
2. Chandra, Subhash. *मशीनी अनुवाद (Machine Translation)* यजूीसी सीबीसीएस स्कीम के तहत बीए (संस्कृत) केएईईसी (AEEC)-3 के पाठ्यक्रम पर आधारित. Vidyanidhi Prakashana, New Delhi, India. ISBN: 9789385539527.

Credits - 2
Hours - 30

SEC 31: Ayurvedic Lifestyle and Nutrition - Basics

Course Objectives:

1. To introduce foundational concepts of diet and nutrition from an Ayurvedic and Yogic perspective.
2. To develop understanding of Mitahara, compatible food combinations, and nutritional components.

Learning Outcomes:

After completing this course, learners will be able to:

1. Demonstrate knowledge of Ayurvedic diet principles including Ahara and Mitahara.
2. Explain the concept and theory of Viruddahar (dietetic incompatibilities).
3. Identify major nutritional groups including carbohydrates, lipids, vitamins, minerals, and proteins.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 31	Ayurvedic Lifestyle and Nutrition – Basics	02	0	0	02

Details of Course:

Unit I Foundations of Ayurvedic Diet. **Credit 1**

- General introduction of Ahara (Diet)
- Concept of Mitahara.
- Definition and classification in Yogic diet according to traditional Yoga texts.
- Concepts of Diet according to:
  - *Gheranda Samhita*
  - *Hatha Pradeepika*
  - *Bhagavad Gita*
- Pathya, Apathya & Yuktahara according to Bhagavad Gita (6/17)
- Triguna (Bh. G. 17/8, 9, 10) and Trividh Ahar in relation to mental health.
- Quality of diet and its relation with Agni.
- Role of Ahara in Panchkoshiya Sadhana (Chhandogya Upanishad)
- Nutrients: Contents of diet for daily use.
- Balanced diet and diet during yogic practices.
- Body Mass Index (BMI)
- Nutritive values.

Unit II Dietetic Incompatibilities and Nutritional Components. **Credit 1**

- Viruddahar (Dietetic incompatibilities)
- Ashta Ahar Vidhi Vishesh Ayatan.
- Class of adjuvants of foods according to Ayurveda.

- Factors to be examined regarding diet.
- Anupan.
- Carbohydrates, Lipids, Vitamins, Minerals and Proteins Sources and daily requirement.

Essential/Recommended Readings/Texts:

1. Vasu, S. C. (1895). *Gheranda Samhita*. Indian Press.
2. Vishnudevananda, S. (1960). *The Sivananda companion to yoga: Pranayama, diet, meditation and concentration*. Divine Life Society.
3. Swami Muktibodhananda. (1985). *Hatha Yoga Pradipika* (with commentary). Bihar School of Yoga.
4. Swami Satyananda Saraswati. (1984). *Asana Pranayama Mudra Bandha*. Yoga Publications Trust.
5. Taimni, I. K. (1986). *The science of yoga*. Quest Books.
6. Davidson, S., Passmore, R., Brock, J. F., & Truswell, A. S. (1987). *Human nutrition and dietetics*. English Language Book Society & Churchill Livingstone.
7. Svoboda, R. (1992). *Ayurveda: Life, health and longevity*. Penguin Books.
8. Lad, V. (1996). *Ayurveda: The science of self-healing*. Lotus Press.
9. Thompson, D. (2001). *The Ayurvedic diet*. New Age Books.
10. Pole, S. (2006). *Ayurvedic medicine: The principles of traditional practice*. Singing Dragon.
11. Frawley, D. (2012). *Ayurvedic nutrition and cooking*. Lotus Press.
12. Charaka. *Charaka Samhita (with traditional commentaries).* Chaukhambha Sanskrit Series.
13. Sushruta. *Sushruta Samhita (with commentaries).* Chaukhambha Orientalia.

Credits - 2
Hours - 30

SEC 32: Development of Brāhmī Script

Course Objectives:

1. To understand the development of Early Brāhmī alphabet during the Aśokan period.
2. To study variations of Brāhmī script up to the 4th century C.E.
3. To develop introductory paleographic skills relevant to ancient writing systems.

Learning Outcomes:

After completion of this course, students will be able to:

1. Identify the structure and characteristics of Brāhmī script in the Aśokan period.
2. Recognize the transformation and variations of Brāhmī script up to the 4th century C.E.
3. Demonstrate introductory understanding of paleography through script comparison.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 32	Development of Brāhmī Script	02	0	0	02

Details of Course:

Unit I Early Brāhmī Alphabet (Aśokan Period). **Credit 1**

- Early Brāhmī alphabet.
- Aśokan period development.

Unit II Variations and Transition (up to 4th Century C.E.) **Credit 1**

- Translation to variations.
- Development up to 4th century C.E.

Essential/Recommended Readings/Texts:

1. Bühler, G. (1896). *Indian Paleography*. Oxford University Press.
2. Fleet, J. F. (1907). *Inscriptions of the Early Gupta Kings and Their Successors*. Archaeological Survey of India.
3. Hultzsch, E. (1925). *Corpus Inscriptionum Indicarum: Inscriptions of Ashoka*. Government of India Press.
4. Upasak, C. S. (1960). *History & Paleography of Mauryan Brāhmī Script*. Nalanda Publications.
5. Dani, A. H. (1963). *Indian Paleography*. Clarendon Press.
6. Salomon, R. (1996). *Indian Epigraphy: A Guide to the Study of Inscriptions in Sanskrit, Prakrit, and the Other Indo-Aryan Languages*. Oxford University Press.
7. Falk, H. (1999). *Aśokan Brāhmī and the Brāhmī Script*. Annals of the BORI.
8. Witzel, M. (2001). *Early Sanskritization: Origins and Development of Brāhmī Script*. Harvard Oriental Series.

Credits - 2
Hours - 30

SEC 33: Yoga Practice – Intermediate Level

Course Objectives:

1. To develop understanding and practice of Yogic Sūkṣma Vyayāma.
2. To introduce intermediate-level Yogic Sthūla Vyayāma practices.
3. To enhance physical, mental, and sensory coordination through structured yogic exercises.

Learning Outcomes:

After completion of the course, students will be able to:

1. Demonstrate intermediate-level Sūkṣma and Sthūla Vyayāma practices.
2. Perform Surya Namaskara with correct mantra coordination.
3. Apply yogic movements to support physical strength and cognitive development.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 33	Yoga Practice - Intermediate Level	04	0	0	04

Details of Course:

Unit I Yogic Sūkṣma Vyayāma. **Credit 1**

- Ucchāraṇa-sthala tathā Viśuddha-chakra-śuddhi.
- Prārthanā (Prayer)
- Buddhi-tathā-dhṛti śakti-vikāsaka.
- Smaraṇa śakti-vikāsaka.
- Medhā śakti-vikāsaka.
- Netra śakti-vikāsaka.
- Kapola śakti-vardhaka.
- Karṇa śakti-vardhaka.
- Grīvā śakti-vikāsaka - (i), (ii), (iii), (iv)

Unit II Yogic Sthūla Vyayāma. **Credit 1**

- Rekhā-gati (Walking in a straight line)
- Hṛd-gati (Injanadaura, The Locomotive Exercise)
- Utkurḍana (Jumping Exercise)
- Ūrdhva-gati (Upward Movement)
- Sarvāṅga-puṣṭi (Developing the entire body)
- Sūryanamaskāra, Practice with Mantras.

Essential/Recommended Readings/Texts:

1. Swami Dhirendra Brahmachari. (1966). Yogasana Vijnana, New Delhi: Dhirendra Yoga Publications.
2. Swami Dhirendra Brahmachari. (1980). *Yogic Sukshma Vyayama*, New Delhi: Dhirendra Yoga Publications.

Credits - 2
Hours - 30

SEC 34: Ayurvedic Medicinal Plants and Herbs

Course Objectives:

1. To introduce students to important medicinal plants used in Ayurvedic treatments.

Learning Outcomes:

After completing this course, learners will be able to:

1. Explain the historical and contemporary significance of medicinal and aromatic plants.
2. Identify key Ayurvedic medicinal plants and describe their systematics, distribution, and uses.
3. Understand conservation issues and cultivation practices related to medicinal plants.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 34	Ayurvedic Medicinal Plants and Herbs	04	0	0	04

Details of Course:

Unit I Foundations of Medicinal and Aromatic Plants (MAPs) **Credit 1**

- MAPs: Definition, history, importance and future prospects
- Medicinal plants: past and present status in India and the world
- MAPs as industrial crops – constraints and remedial measures
- Medicinal plant diversity and local healthcare
- Medicinal plant conservation: issues and approaches
- Medicinal Plant Conservation Areas (MPCA)
- Non-timber forest products (NTFP)
- Good Agriculture Practices (GAP)
- Indian Himalayan Region (IHR)

Unit II Important Medicinal and Aromatic Plants. **Credit 1**

- **Medicinal plants of India – systematics, distribution and uses:**
  - *Acorus calamus*
  - *Adhatoda vasica*
  - *Abrus precatorius*
  - *Aloe vera*
  - *Phyllanthus amarus*
  - *Stevia rebaudiana*
  - Belladona
  - Cinchona
- **Important aromatic plants (taxonomic descriptions and uses):**
  - Citronella, Davana, Damask rose, Geranium, Khus grass, Large cardamom, Lavender

- Lemon grass, Mentha, Holy basil, Patchouli, Rosemary, Palmarosa
- Vetiver, Artemisia, Eucalyptus, Thyme, Marjoram, Oreganum

- **Aromatic spices:**
  - Clove, Cinnamon, Nutmeg, Ajwain, Dill, Celery, Tamarind, Garcinia
  - Curry leaf and Saffron

Essential/Recommended Readings/Texts:

1. Bentley, R., & Trimen, H. (1880). *Medicinal Plants*. J&C Churchill.
2. Kirtikar, K. R., & Basu, B. D. (1935). *Indian Medicinal Plants*. Lalit Mohan Basu Publishers.
3. Kala, C. P. (2010). *Medicinal plants of Uttarakhand*.
4. Samant, S. S., & Dhar, U. *Medicinal plants of Indian Himalaya*.

Credits - 2
Hours - 30

SEC 35: Yogasana and Pranayama

Course Objectives:

1. To enable learners to practice foundational Yogasana and Pranayama techniques for physical, mental and spiritual development.

Learning Outcomes:

After completing the course, learners will be able to:

1. Demonstrate selected Yogasanas with correct technique, precautions, and contraindications.
2. Understand the basic concepts of Pranayama, Dhyana and Samadhi.
3. Apply yogic practices for holistic well-being and inner awareness.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 35	Yogasana and Pranayama	02	0	0	02

Details of Course:

Unit I Yogasana Practice. **Credit 1**

- **Conceptual Components:**
  - Meaning and definition of Yogasana.
  - Objectives and types of Yogasana.
  - Technique, benefits, precautions, prerequisites and contraindications.
- **Asanas Included:**
  - Siddhasana.
  - Padmasana.
  - Bhadrasana.
  - Muktasana.
  - Vajrasana.
  - Swastikasana.
  - Simhasana.
  - Gomukhasana.
  - Virasana.
  - Dhanurasana.
  - Mrtasana.
  - Guptasana.
  - Matsyasana.
  - Paschimottanasana.
  - Matsendrasana.
  - Gorakshasana.

Unit II Pranayama, Dhyana and Samadhi. **Credit 1**

- Meaning and relevance.
- Place, time and diet considerations.
- Types of Pranayama.
- Dhyana according to *Gheranda Samhita.*
- Introduction to Samadhi.

Essential/Recommended Readings/Texts:

1. Vasu, S. C. (1914). *Gheranda Samhita* (English translation).
2. Kaivalyadhama. *Gheranda Samhita* (with practical commentary).

3. Swami Sivananda. (1934). *The Science of Pranayama*. Divine Life Society.
4. Swami Dhirendra Brahmachari. (1980). *Yogic Sukshma Vyayama*. Dhirendra Yoga Publications.
5. Muktibodhananda, S. (1985). *Hatha Yoga Pradipika (Commentary)*. Bihar School of Yoga.

Credits - 2
Hours - 30

SEC 36: Soft Skills and Professional Development

Course Objectives:

1. To introduce students to essential soft skills required for personal and professional success.
2. To develop effective communication, interpersonal relations and emotional intelligence.
3. To enhance workplace readiness through leadership, teamwork, etiquette and ethical practice.
4. To strengthen problem-solving, adaptability and innovation skills required in modern workplaces.
5. To prepare students for career planning, resume building and professional interviews.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate refined communication skills—verbal, non-verbal, written and presentation-based.
2. Apply emotional intelligence, conflict resolution and teamwork strategies in real-life scenarios.
3. Use time-management tools and SMART goal-setting techniques for academic and career planning.
4. Practice professional ethics, workplace etiquette and leadership skills in organizational contexts.
5. Prepare effective resumes, cover letters and perform confidently in interviews.
6. Exhibit adaptability, critical thinking and creativity in workplace challenges.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 36	Soft Skills and Professional Development	02	0	0	02

Details of Course:

Unit I Soft Skills for Personal and Professional Growth.

- **Introduction to Soft Skills.**
  - Meaning, nature and relevance in professional settings.
  - Difference between soft and hard skills.
  - Role of soft skills in career advancement.
- **Communication Skills.**
  - Verbal and non-verbal communication.
  - Active listening and effective speaking.
  - Email and business writing etiquette.
  - Public speaking and presentation skills.

- **Interpersonal Skills & Emotional Intelligence.**
  - Building positive workplace relationships.
  - Conflict resolution and negotiation skills.
  - Self-awareness and empathy.
  - Managing emotions, stress and professional behavior.
- **Time Management and Goal Setting.**
  - Prioritization and task management.
  - SMART goals for career planning.
  - Overcoming procrastination.
  - Enhancing productivity and efficiency.

Unit II Professional Development and Workplace Readiness.

- **Professional Ethics and Workplace Etiquette.**
  - Workplace culture, norms and expectations.
  - Business etiquette, dress code and body language.
  - Ethical decision-making and corporate responsibility.
- **Leadership and Teamwork.**
  - Leadership styles and qualities.
  - Team dynamics and collaboration.
  - Problem-solving and decision-making in group settings.
- **Adaptability and Innovation.**
  - Managing workplace changes and challenges.
  - Critical thinking and analytical skills.
  - Creativity and innovation for professional growth.
- **Career Planning and Interview Skills.**
  - Resume and cover letter preparation.
  - Interview techniques and preparation.
  - Networking, LinkedIn profiling and personal branding.

Essential/Recommended Readings/Texts

1. Carnegie, Dale. *How to Win Friends and Influence People.* Simon & Schuster.
2. Kumar, Sanjay. & Lata, Pushp. *Communication Skills.* Oxford University Press.
3. Goleman, Daniel. *Emotional Intelligence.* Bantam Books.
4. Covey, Stephen R. *The 7 Habits of Highly Effective People.* Simon & Schuster.
5. Robbins, Stephen P. & Hunsaker, Phillip L. *Training in Interpersonal Skills: Tips for Managing People at Work.* Pearson.
6. Pease, Allan & Barbara. *The Definitive Book of Body Language.* Bantam Australia.
7. Lucas, Stephen E. *The Art of Public Speaking.* McGraw-Hill Education.
8. McLean, Scott. *Business Communication for Success.* OpenStax.
9. Barker, Alan. *Improve Your Communication Skills.* Kogan Page.
10. Tracy, Brian. *Eat That Frog! 21 Great Ways to Stop Procrastinating and Get More Done.* Berrett-Koehler.
11. Parikh, M. *Essence of Leadership.* Tata McGraw Hill.
12. Singh, Kavita. *Soft Skills for Professional Excellence.* Wiley India.

Credits - 2
Hours - 30

SEC 37: Internship / Practical Training

Course Objectives:

1. To provide real-world exposure to industry practices and professional environments.
2. To help students apply theoretical concepts in practical situations.
3. To develop essential workplace skills such as communication, teamwork and professional ethics.
4. To strengthen analytical, managerial and technical abilities through hands-on training.
5. To guide students in preparing structured reports, documentation and professional presentations.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate understanding of workplace culture, professional conduct and ethical responsibilities.
2. Apply theoretical knowledge to real-world tasks and industry processes.
3. Work effectively in teams, communicate professionally and interact with supervisors/clients.
4. Maintain systematic records including work logs, reports and project documentation.
5. Plan, execute and present a project based on industry experience.
6. Collect, analyze and interpret field data to propose improvements or solutions.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 37	Internship / Practical Training	02	0	0	02

Details of Course:

Unit I Industry Exposure and Skill Development.

- **Introduction to Internship / Practical Training.**
  - Objectives and expectations of the internship.
  - Understanding workplace environment, hierarchy & professional ethics.
  - Communication, collaboration and teamwork in professional settings.
- **Fieldwork and Hands-on Training.**
  - Application of theoretical knowledge.
  - Observation, shadowing and assisting in real-world projects.
  - Developing technical, managerial, analytical and soft skills.
- **Reporting and Documentation.**
  - Maintaining daily work logs, diaries and case records.
  - Regular review sessions with supervisors.
  - Ethical and responsible conduct during fieldwork.
- **Assessment:**

- Work Log / Internship Diary Submission.
- Supervisor Evaluation.
- Skill-Based Assessment.

Unit II Project Work and Final Report Submission.

- **Project Planning and Execution.**
  - Identifying a problem statement or industry-based project.
  - Applying learned skills to devise solutions.
  - Independent and team-based project development.
- **Data Collection and Analysis.**
  - Gathering practical insights and field data.
  - Identifying challenges and suggesting improvements based on analysis.

- **Final Report and Presentation.**
  - Structure of the internship report: *Introduction – Objectives – Methodology – Observations – Analysis – Conclusion.*
  - Preparing and presenting findings to faculty/industry evaluators.
  - Incorporating feedback and refining the final submission.

- **Assessment:**
  - Internship Project Report Submission.
  - Oral Presentation / Viva-Voce.
  - Industry / Faculty Review and Feedback.

Essential/Recommended Readings/Texts

1. Sweitzer, H. F., & King, M. A. The Successful Internship: Personal, Professional and Civic Development. Cengage Learning.
2. Binder, Thomas. Internship Guidebook: Strategies for Professional Growth.
3. Knouse, S. B., Tanner, J. R., & Harris, E. W. Internships: Theory and Practice.
4. Kumar, Sanjay & Lata, Pushp. Communication Skills. Oxford University Press.
5. Goleman, Daniel. Working with Emotional Intelligence. Bantam Books.
6. Cooper, Dominic. Effective Safety Leadership and Ethics in the Workplace.
7. Creswell, John W. Research Design: Qualitative, Quantitative and Mixed Methods Approaches.
8. Kumar, Ranjit. Research Methodology: A Step-by-Step Guide for Beginners. Sage Publications.
9. Turabian, Kate L. A Manual for Writers of Research Papers, Theses and Dissertations.
10. Ministry of AYUSH (Govt. of India). Guidelines for Internship Training in AYUSH Disciplines.
11. WHO. Benchmarks for Training in Traditional / Complementary Medicine.
12. NITI Aayog. Skill Development and Employability Handbook.

Credits - 2
Hours - 30

SEC 38: Professional Ethics and Legal Issues in Health Practices

Course Objectives:

1. To provide a foundational understanding of ethical principles governing healthcare practices.
2. To familiarize students with legal frameworks relevant to Ayurveda, Yoga, Naturopathy and other wellness systems.
3. To cultivate awareness of professional responsibilities, patient rights and practitioner obligations.
4. To prepare students for ethical decision-making in clinical and non-clinical health environments.
5. To ensure responsible, lawful and patient-centered conduct in health professions.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand and explain major ethical theories and their application to healthcare.
2. Apply core ethical principles—autonomy, beneficence, non-maleficence and justice—in health-related decisions.
3. Demonstrate knowledge of national and international healthcare regulations.
4. Recognize patient rights and legal duties of healthcare practitioners.
5. Understand ethical and legal considerations specific to Yoga, Ayurveda and alternative medicine practices.
6. Identify issues related to negligence, malpractice, confidentiality and informed consent.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 38	Professional Ethics and Legal Issues in Health Practices	02	0	0	02

Details of Course:

Unit I Foundations of Professional Ethics in Healthcare.

- **Introduction to Ethics in Healthcare.**
  - Meaning, scope and importance of professional ethics.
  - Ethical theories: Deontology, Utilitarianism, Virtue Ethics..
  - Ethics and patient-centered care

- **Core Ethical Principles in Healthcare.**
  - Autonomy: Patient rights and informed consent.
  - Beneficence: Promoting patient well-being.
  - Non-maleficence: Avoiding harm in treatments and interventions.
  - Justice: Fair distribution of healthcare resources.

Unit II Legal Frameworks in Health Practices.

- **Regulatory Bodies and Laws Governing Healthcare.**
  - National and international healthcare laws and standards.
  - Legal frameworks for Ayurveda, Yoga, Naturopathy and traditional/alternative medicine.
  - Role of medical councils, AYUSH bodies and accreditation agencies.

- **Patient Rights and Legal Responsibilities of Healthcare Practitioners.**
  - Privacy and confidentiality (HIPAA, GDPR relevance)
  - Informed consent, documentation and decision-making.
  - Malpractice, negligence, liabilities and legal consequences.

Essential/Recommended Readings/Texts

1. Beauchamp, T. L., & Childress, J. F. *Principles of Biomedical Ethics.* Oxford University Press.
2. Gillon, R. *Philosophical Medical Ethics.* Wiley-Blackwell.
3. Purtilo, R. B., & Doherty, R. F. *Ethical Dimensions in the Health Professions.* Elsevier.
4. Stanford Encyclopedia of Philosophy – Articles on Healthcare Ethics.
5. Indian Ministry of AYUSH – Regulatory Guidelines for Ayurveda and Yoga Practice.
6. Sharma, P. V. *Ayurveda: Principles and Practice.*
7. Basavaraddi, I. V. (MDNIY). *Yoga and Law: Guidelines for Professional Practice.*

Credits - 2
Hours - 30

SEC 39: Therapeutic Yoga and Holistic Health

Course Objectives:

1. To introduce foundational principles of yoga therapy.
2. To familiarize students with biomedical and psychological approaches to therapeutic yoga.
3. To develop awareness of therapeutic tools and professional practices in yoga therapy.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the basis and foundations of yoga therapy.
2. Identify bio-psychological elements relevant to therapeutic practices.
3. Demonstrate understanding of therapeutic tools and professional clinic-based practice.
4. Recognize how yoga can be used therapeutically to address health conditions.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 39	Therapeutic Yoga and Holistic Health	04	0	0	04

Details of Course:

Unit I Basis of Yoga Therapy. **Credit 1**

- Basis of Yoga Therapy.
- Acupressure Therapy.

Unit II Foundations of Yoga Therapy. **Credit 1**

- Biomedical Foundations.
- Psychological Foundations.

Unit III Therapeutic Tools and Skills. **Credit 1**

- Therapeutic tools.
- Therapeutic skills.

Unit IV Excellence in Professional Practice. **Credit 1**

1. Mentored student clinic.
2. Yoga therapy: special topics.

Essential/Recommended Readings/Texts:

1. Kuvalayananda, S., & Vinekar, S. L. (1963). *Yogic therapy: Its basic principles and methods*. Kaivalyadhama.
2. Desikachar, T. K. V. (1995). *Health, healing and beyond*. North Point Press.
3. Satyananda Saraswati, S. (2002). *Yoga psychology*. Bihar School of Yoga.

4. Nagendra, H. R., & Nagarathna, R. (2003). *Yoga for common ailments*. VYASA Publications.
5. Michael Lee. (2011). *Yoga therapy for stress and anxiety*. New Harbinger Publications.
6. Iyengar, B. K. S. (2013). *Light on yoga therapy*. Harper Collins.
7. Le Page, J., & Le Page, L. (2016). *Yoga therapy: A holistic approach to wellness*. Integrative Yoga Therapy Publications.
8. Bharat Thakur. *Ayurvedic acupressure & Sujok therapy*.
9. Kaminoff, L. *Yoga anatomy*. Human Kinetics.
10. Satyananda Saraswati, S. *Yoga therapy*. Bihar Yoga Bharati.
11. Gharote, M. L., Guruji, K. V., & Nagarathna, R. *Therapeutic yoga*. Kaivalyadhama Publications.

Credits - 2
Hours - 30

SEC 40: Advanced Yoga Practices and Teaching Methodologies

Course Objectives:

1. Develop advanced Yoga skills and learn effective teaching methodologies.

Learning Outcomes:

After the completion of the course, the students will:

1. Apply pedagogical principles in Yoga teaching.
2. Demonstrate effective class planning and management skills.
3. Design and deliver structured Yoga lessons for diverse groups.
4. Utilize educational tools and methodologies appropriate for Yoga instruction.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 40	Advanced Yoga Practices and Teaching Methodologies	04	0	0	04

Details of Course:

Unit I Principles and Methods of Teaching Yoga. **Credit 1**

- Teaching and learning: concepts and relationship.
- Principles of teaching: levels and phases of teaching.
- Qualities of a perfect Yoga Guru.
- Meaning and scope of teaching methods.
- Factors influencing teaching methods.
- Sources of teaching methods.
- Role of Yoga teachers and teacher training.

Unit II Basics of Yoga Class Management. **Credit 1**

- Practice of Yoga at different levels:
  - Beginners.
  - Advanced.
  - School children.
  - Youth.
  - Women.
  - Special attention groups.
- Techniques of mass instruction.
- Techniques of individualized teaching.
- Techniques of group teaching.
- Organization of teaching: time management, discipline.

Unit III Lesson Planning in Yoga. **Credit 1**

- Essentials of a good lesson plan: concept and need.
- Planning of teaching Yoga:
  - Shatkriya.

  - Asana.
  - Mudra.
  - Pranayama.
  - Meditation.
- Models of lesson plan.
- Lesson plan and its practical applications.
- Effective use of library and resources.

Unit IV Educational Tools of Yoga Teaching. **Credit 1**

- Yoga classroom: essential features, area, sitting arrangements.
- Classroom problems: types and solutions.
- Characteristics and essentials of good Yoga teaching.
- Time table: need, types and principles.
- Time table for Yoga teaching.
- Meaning, importance and types of educational technology.
- Role of educational technology in Yoga.

Essential/Recommended Readings/Texts:

1. Iyengar, B. K. S. (1966). *Light on Yoga*. George Allen & Unwin.
2. Kuvalayananda, S. (1977). *Asanas*. Kaivalyadhama.
3. Satchidananda, S. (1978). *The Yoga Sutras of Patanjali: Commentary*. Integral Yoga Publications.
4. Venkatesananda, S. (1984). *The Concise Yoga Vāsiṣṭha*. State University of New York Press.
5. Satyananda Saraswati, S. (1989). *Teaching Yoga in Schools and Institutions*. Bihar School of Yoga.
6. Gharote, M. L. (2001). *Applied Yoga*. Kaivalyadhama.
7. Gharote, M. L. (2007). *Teaching Methods for Yogic Practices*. Kaivalyadhama.
8. Shri Krishna. (2009). *Notes on Basic Principles and Methods of Teaching as Applied to Yogic Practices*. Kaivalyadhama.
9. Feuerstein, G. (2008). *The Yoga Tradition*. Hohm Press.
10. Telles, S., & Desiraju, T. (2012). *Yoga and Neurophysiology*. Sri Ramachandra Publications.

Credits - 2
Hours - 30

SEC 41: Artificial Intelligence & Natural Language Processing

Course Objectives:

1. To introduce the foundational concepts, techniques and applications of Artificial Intelligence (AI).
2. To provide a structured understanding of Natural Language Processing (NLP), including linguistic levels, encoding and transliteration.
3. To familiarize students with morphological analysis, compound processing and machine translation approaches.
4. To introduce computational linguistics, speech technologies, language understanding and natural language interfaces.
5. To expose learners to computational tools and AI applications in Sanskrit and other Indian languages.

Learning Outcomes:

After the completion of the course, the students will:

1. Define AI, describe its techniques and explain problem spaces and search strategies.
2. Understand linguistic concepts essential for NLP: morphology, encoding and transliteration schemes.
3. Perform basic morphological and compound analysis and generation (practical).
4. Explain rule-based and machine learning–based approaches to Machine Translation.
5. Describe the fundamentals and current state of Computational Linguistics.
6. Understand speech recognition, speech synthesis, text processing and knowledge representation systems.
7. Explore computational tools relevant to Sanskrit language processing.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 41	Artificial Intelligence & Natural Language Processing	04	0	0	04

Details of Course:

Unit I Introduction to Artificial Intelligence. **Credit 1**

- Definition of AI.
- AI techniques.
- Levels of models.
- Problem spaces and search:
  - Defining problems as state-space.
  - Production systems.
  - Problem characteristics.
- Applications of AI.

Unit II Introduction to NLP. **Credit 1**

- Levels of linguistic analysis:
- Characters → Morpheme → Word → Sentence → Discourse.
- Encoding systems: Unicode, ASCII.
- Transliteration schemes: IAST, ISO 15919, Harvard-Kyoto, etc.
- Morphological analysis and generation.
- Compound analysis and generation (Practical)

Unit III Introduction to Machine Translation. **Credit 1**

- Rule-based Machine Translation.
- Machine Learning–based MT.
    - Sequence-to-Sequence models.
- Paninian grammatical concepts for Indian languages.
- Introduction to computational tools for Sanskrit.

Unit IV Computational Linguistics & Speech Technologies. **Credit 1**

- **Introduction to Computational Linguistics.**
    - State-of-the-art in Computational Linguistics.
    - Language analysis and understanding.
    - Natural language generation.
    - Text processing.
    - Knowledge representation in NLP.
- **Speech and Language Technologies.**
    - Speech recognition and speaker recognition.
    - Speech synthesis.
    - Text-to-speech systems.
    - Natural language interfaces and applications.

Essential/Recommended Readings/Texts

1. Rich, Elaine & Knight, Kevin. *Artificial Intelligence.* Tata McGraw Hill.
2. Russell, Stuart & Norvig, Peter. *Artificial Intelligence: A Modern Approach.* Pearson.
3. Jurafsky, Dan & Martin, James. *Speech and Language Processing.* Pearson.
4. Manning, Christopher & Schütze, Hinrich. *Foundations of Statistical Natural Language Processing.* MIT Press.
5. Bharati, Akshar; Chaitanya, Vineet; Sangal, Rajeev. *Natural Language Processing: A Paninian Perspective.* Prentice Hall.

Additional Readings:

1. Nivre, Joakim. *Dependency Grammar and Parsing.*
2. Smith, Noah A. *Linguistic Structure Prediction.*
3. Ranganath, S. *Computational Sanskrit Tools and Applications.*

Credits - 2
Hours - 30

SEC 42: Research Elective

Course Objectives:

1. To Introduce students to fundamental and advanced concepts of research methodology.
2. To Develop skills in formulating research problems, hypotheses, objectives and research designs.
3. To Train students in qualitative, quantitative and mixed-method research approaches.
4. Familiarize learners with tools for data collection, analysis, referencing and academic writing.
5. To Enable students to undertake an independent research project and present findings systematically.
6. To Build ethical understanding and integrity in research practices.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify research gaps and formulate researchable problems.
2. Develop objectives, hypotheses and appropriate research designs.
3. Apply quantitative and qualitative research methods.
4. Collect, analyze and interpret data using appropriate statistical tools.
5. Write research proposals, reports and academic papers following ethical guidelines.
6. Present research outcomes effectively using tables, graphs and visual tools.
7. Demonstrate the ability to conduct an independent mini-research project.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
SEC 42	Research Elective	04	0	0	04

Details of Course:

Unit I Foundations of Research. **Credit 1**

- Meaning, scope and importance of research.
- Types of research:
  - Fundamental.
  - Applied.
  - Experimental.
  - Descriptive.
  - Analytical.
  - Interdisciplinary.
- Research ethics and plagiarism awareness.
- Identification & formulation of a research problem.
- Writing research objectives and hypotheses.

Unit II Research Design & Methods. **Credit 1**

- Components of research design.
- Sampling techniques:
  - Probability (Random, Stratified, Systematic)
  - Non-probability (Convenience, Purposive, Snowball)
- Methods of data collection:
  - Observation.
  - Interviews.
  - Questionnaires & surveys.
  - Textual/literary analysis.
- Tools for qualitative research:
  - Content analysis.
  - Focus groups.
  - Case studies.
- Tools for quantitative research:
  - Variable types.
  - Measurement scales.
  - Reliability & validity.

Unit III Data Analysis & Academic Writing. **Credit 1**

- Basics of statistical analysis:
  - Mean, median, mode.
  - Standard deviation.
  - Correlation & regression (introductory)
- Qualitative data interpretation: coding, themes, categories.
- Structure of a research paper or dissertation:
  - Introduction.
  - Literature review.
  - Methodology.
  - Results.
  - Discussion.
  - Conclusion.
- Citation styles: APA / MLA / Chicago.
- Use of digital research tools:
  - Zotero / Mendeley.
  - Google Scholar.
  - Turnitin-like plagiarism checkers.

Unit IV Research Project (Practicum) **Credit 1**

- Selection of topic in consultation with faculty.
- Preparation of research proposal/synopsis.
- Review of relevant literature.
- Data collection & analysis (field, text-based, clinical, or digital depending on discipline).
- Preparation of research report.
- Oral/viva presentation of research findings.

Essential/Recommended Readings/Texts

1. Kothari, C.R. — Research Methodology: Methods and Techniques.
2. Creswell, J.W. — Research Design.
3. Flick, Uwe — An Introduction to Qualitative Research.
4. Best & Kahn — Research in Education.
5. Cohen & Manion — Research Methods in Education.

Discipline-Specific (Optional Based on Stream)

- For Ayurveda:
  - Sahu, M. *Research Methods in Ayurveda.*
  - Ravindra Angadi Principles *of Ayurvedic Research.*
- For Yoga & Psychology:
  - Telles, Shirley — *Yoga and Neuroscience Research.*
  - APA Publication Manual.
- For Sanskrit & Literature:
  - Gombrich — *Philology and Textual Research.*
  - Salomon — *Indian Epigraphy* (for textual studies)

POOL OF VALUE-ADDED COURSES

Credits - 2
Hours - 30

VAC 1: Leadership Excellence through the Gita

Course Objectives:

1. To understand the leadership principles articulated in the Bhagavad Gita.
2. To explore ethical decision-making, duty and self-mastery as leadership essentials.
3. To apply Gita's wisdom to modern challenges in governance, defence and organizational contexts.
4. To develop personal effectiveness, resilience and clarity in leadership roles.
5. To bridge ancient wisdom with contemporary defence leadership and management practices.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify key verses of the Gita relevant to leadership and duty.
2. Demonstrate self-awareness and discipline as the foundation of leadership.
3. Apply karma yoga, jnana yoga and bhakti yoga principles to leadership contexts.
4. Analyse leadership dilemmas through the lens of dharma and ethics.
5. Integrate Gita-based leadership values into defence, security and organizational contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 1	Leadership Excellence through the Gita	02	0	0	02

Details of Course:

Unit I Foundations of Leadership in the Gita. **Credit 1**

- Arjuna's dilemma and Krishna's leadership guidance.
- Concepts of Svadharma, duty and righteous action.
- Leadership styles in the Gita: guiding, mentoring, commanding.
- Relevance to military and defence contexts.

Unit II Self-Mastery and Leadership Effectiveness. **Credit 1**

- Atman and self-awareness as the leader's strength.
- Emotional regulation and equanimity (Samatvam Yoga Uchyate).
- Overcoming fear, doubt and attachment in decision-making.
- Case reflections: Leaders in Indian history & defence.

Unit III Ethical Decision-Making and Strategic Action. **Credit 1**

- Karma Yoga: Action without attachment.
- Nishkama Karma: Detachment and focus in leadership.
- Dharma and leadership ethics in war, governance and society.
- Defence leadership dilemmas: Just war, duty vs. consequence.

Unit IV Applied Leadership and Contemporary Relevance. **Credit 1**

- Bhakti and Jnana approaches to leadership.
- Servant leadership and humility in the Gita.
- Application to defence forces, corporate governance and public life.
- Mini-project: Leadership lessons from the Gita for 21st-century defence and security.

Essential/Recommended Readings/Texts:

1. Aurobindo, Sri. (1922). *Essays on the Gita*. Sri Aurobindo Ashram Publication Department.
2. Bhave, V. (1938). *Talks on the Gita*. Sarva Seva Sangh Prakashan. Retrieved September 2, 2025, from https://www.mkgandhi.org/talksongita/talk_gita.php
3. Aurobindo, Sri. (1950). *The message of the Gita as interpreted by Sri Aurobindo*. Sri Aurobindo Ashram Publication Department.
4. Chinmayananda, Swami. (1987). *The Bhagavad Geeta: Chapter XVIII*. Central Chinmaya Mission Trust.
5. Chakraborty, S. K. (1996). *Wisdom leadership: Gita and the art of successful management*. Indus/HarperCollins India.
6. Ranganathananda, Swami. (2000). *Universal message of the Bhagavad Gita*. Advaita Ashrama.
7. Easwaran, E. (2005). *The Bhagavad Gita for daily living* (Vols. 1–3). Jaico Publishing House.
8. Devaraj, N. K. (2024). *Leadership lessons from the Bhagavad Gita*.

Additional Readings:

1. Gosvami, Narayana. *Bhagavad-gita: With Vaishnava Commentaries*. Delhi: Motilal Banarsidass, 2013.
2. Śrīmadbhagavadgītā (Sādhaka Hindī Ṭīkā). Gorakhpur: Gita Press, 2000.
3. Srinivasan, M. S. *Management Paradigms from Bhagavad Gita*. Pondicherry: Sri Aurobindo Society.
4. The Bhagavadgītā or *The Song Divine: With Sanskrit Text and English Translation*. Gorakhpur: Gita Press, 1999.
5. Yogananda, Paramahansa. *God Talks with Arjuna: The Bhagavad Gita*. Los Angeles: Self-Realization Fellowship, 1995.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Quizzes on key concepts and verses from the Gita.
2. Reflection essays like “My leadership takeaway from Arjuna’s dilemma.”
3. Verse interpretation assignment of Gita shlokas for leadership relevance.
4. Group discussion on Case studies like Duty vs. consequence in defence leadership
5. Presentation group or individual on Gita-based solutions to modern leadership dilemmas.
6. Mini-project consisting of an application paper like Leadership model for defence/security inspired by the Gita.

Credits - 2
Hours - 30

VAC 2: Rājadharma in the Mahābhārata and Śukranīti

Course Objectives:

1. To explore the concept of Rājadharma (duties of a ruler) in Sanskrit political thought.
2. To conduct a comparative study of Rājadharma in the Mahābhārata and Śukranīti.
3. To examine governance, diplomacy, justice and military duties from a defense and statecraft perspective.
4. To understand the ethical dilemmas of rulership in epic and nītiśāstra traditions.

Learning Outcomes:

After the completion of the course, the students will:

1. Identify the textual foundations of Rājadharma in epic and nīti traditions.
2. Analyze the political, moral and legal duties of rulers as prescribed in Sanskrit texts.
3. Compare and contrast epic-based and nītiśāstra-based governance principles.
4. Analyze governance, diplomacy, justice and military responsibilities through the lens of defense and statecraft.
5. Apply traditional governance principles to modern political and defense scenarios.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 2	Rājadharma in the Mahābhārata and Śukranīti	02	0	0	02

Details of Course:

Unit I Foundations of Rājadharma in the Mahābhārata & Śukranīti. Credit 1

- Introduction to Rājadharma: Meaning, scope, historical significance.
- Overview of Mahābhārata on kingship (Mahābhārata - Śānti Parva (Chapters 58-69, 107–121), Anuśāsana Parva (Chapters 1-10)
- Overview of Śukranīti (Śukranīti -1.1-90)
- Sources of royal authority.
- Qualities of an ideal king.

Unit II Administration, Justice and Welfare. Credit 1

- Role of the king as protector.
- Attachment vs. Duty (Mahābhārata: Sabha Parva, Chapters 58–70; Śānti Parva, Chapter 63.
- Danda-nīti (Mahābhārata - Śānti Parva (Chapters 88–96, 121–123)
- Revenue, taxation and economic justice (Śukranīti -2.1–120)
- Welfare policies.
- Ministers, counsellors and administration structure.

Unit III Diplomacy, War and Defense Duties of a King. Credit 1

- Foreign policy in Rājadharma — Sandhi, Vigraha, Yāna, Āsana, Dvaidhibhāva.
- Duties in wartime (Śukranīti —3.1–150)

- Strategic sciences (Mahābhārata—Udyoga Parva (Chapters 33–36), Śānti Parva (Chapters 99–106)
- Role of alliances and treaties.

Unit IV Ethical Dilemmas and Decline of Dharma. Credit 1

- Understanding dharma-sankata (conflict of duties) in rulership (Mahābhārata: Śānti Parva, Chapters 56–57, 301, Śukranīti-4.1–20)
- Śukranīti on the moral decay of officials, ministers and the signs of adharma-dominated governance and societal breakdown (Śukranīti-4.21–65)
- Bhīṣma's remedies for restoring rājadharma (Mahābhārata-Śānti Parva, Chapters 306-310)
- Śukranīti's principles of purging corruption and re-establishing order (Śukranīti-4.66-80)

Essential/Recommended Readings/Texts:

1. Ganguli, K. M. (Trans.). (1883–1896/2010). *The Mahabharata of Krishna-Dwaipayana Vyasa* (12 vols.). Bharata Press. (Reprinted by Motilal Banarsidass, 2010)
2. Śukra. (1914/1975). *Śukranīti* (B. K. Sarkar, Ed. & Trans.). Greater India Society. (Reprinted by Cosmo Publications, 1975)
3. Hopkins, E. W. (1924). *The ethics of India*. Yale University Press.
4. Fitzgerald, J. L. (Trans.). (2004). *The Mahabharata, Book 11: The Book of the Women; Book 12: The Book of Peace, Part One*. University of Chicago Press.
5. Debroy, B. (Trans.). (2010–2014). *The Mahabharata* (10 vols.). Penguin Books.

Additional Readings:

1. Sarkar, B. K. (1922). *The Hindu theory of the state*. Longmans, Green & Co.
2. Kane, P. V. (1930–1962). *History of Dharmaśāstra* (Vols. 1–5). Bhandarkar Oriental Research Institute.
3. Altekar, A. S. (1958). *State and government in ancient India* (2nd ed.). Motilal Banarsidass.
4. Bhattacharya, N. N. (1984). *Indian political thought from Manu to Gandhi*. Ajanta Publications.
5. Rangarajan, L. N. (Trans.). (1992). *Kautilya: The Arthashastra*. Penguin Books.
6. Sharma, A. (2004). *Hinduism and human rights: A conceptual approach*. Oxford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Textual Reading Reflections like short write-ups (500 words) on assigned passages from the Śānti Parva and Śukranīti focusing on dharma, kingship, defence, ethics.
2. Class Presentations either group or individual presentation on themes such as "Rājadharma and Just War" or "Ethics of Counsel to Kings."
3. Comparative Essay like writing a short essay (1,000 words) comparing Mahābhārata and Śukranīti views on leadership, law, or military ethics.
4. Discussion Participation to encourage active involvement in classroom discussions, debates and Q&A.
5. Presentation of the topic in the Vagvardhini Parishad.

Credits - 2
Hours - 30

VAC 3: Bhārata Bodha

Course Objectives:

1. To provide students with knowledge of the cultural, social, political and philosophical foundations of Bharatvarsha.
2. To explore India's civilizational identity through its literature, art and knowledge systems.
3. To examine Indian concepts of dharma, governance and universal brotherhood (Vasudhaiva Kutumbakam).
4. To highlight India's contributions to science, mathematics, medicine, ecology and economics.
5. To connect ancient Indian wisdom with modern challenges in society, defence and sustainability.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the concept and cultural significance of Bharatvarsha.
2. Analyze the evolution of Indian scripts, languages, art and knowledge systems.
3. Assess the role of dharma, polity and governance in shaping Indian civilization.
4. Identify contributions of ancient India to science, mathematics, medicine and ecology.
5. Evaluate traditional Indian economic systems and their relevance for sustainability.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 3	Bhārata Bodha	04	0	0	04

Details of Course:

Unit I Concept of Bharatvarsha and Literature. **Credit 1**

- Idea of Bharatvarsha and its synonyms.
- Rashtra, Raja and Rajya
- Indian concepts of time and space.
- Survey of Indian literature: Vedas, Vedangas, Upanishads, Epics, Jain and Buddhist texts, Smritis, Puranas.

Unit II Knowledge Traditions, Art and Education. **Credit 1**

- Evolution of Indian scripts and languages: Brahmi, Kharoshthi, Pali, Prakrit, Sanskrit, Tigaliri.
- Salient features of Indian art and cultural expressions.
- Indian educational traditions and the ethics of valor.

Unit III Dharma, Philosophy and Governance. **Credit 1**

- Indian perspectives on dharma and darśana.
- The concept of Vasudhaiva Kutumbakam: man, family, society, world.
- Polity and governance: Janapada and Gram Swarajya.

Unit IV Science, Environment and Economic Tradition. Credit 1

- Ancient Indian science and technology.
- Environmental conservation in Indian thought.
- Ayurveda, Yoga and health sciences.
- Indian numeral system and mathematics.
- Economic traditions: agriculture, industry, trade and maritime commerce.

Essential/Recommended Readings/Texts:

1. Altekar, A. S. (1944). *Education in ancient India*. Nand Kishore & Bros.
2. Basham, A. L. (1994). *The wonder that was India*. Rupa.
3. Dharampal. (1995). *The beautiful tree: Indigenous Indian education in the eighteenth century*. Other India Press.
4. Pandey, R. (1998). *Bhāratīya purāttatva* [भारतीय पुरातत्व]. Lok Bharti Prakashan.
5. Mookerji, R. K. (1999). *Indian shipping: A history of seaborne trade and maritime activity of the Indians from the earliest times*. South Asia Books.
6. Pandey, G. C. (2008). *Bhāratīya saṃskṛti* [भारतीय संस्कृति]. Hindi Granth Academy.
7. Sihag, B. S. (2014). *Kautilya: The true founder of economics*. Vitasta Publishing.
8. Jaiswal, K. P. (2021). *Hindu polity*. Gyan Publishing House.
9. Śrī Aurobindo. (n.d.). *Bhāratīya saṃskṛti ke ādhār* [भारतीय संस्कृति के आधार]. Sri Aurobindo Ashram.

Additional Readings:

1. Maurice, T. (1806). *Indian antiquities*. T. Maurice.
2. Mookherjee, R. (1914). *The fundamental unity of India*. Longmans Green.
3. Durant, W. (1935–1975/1993). *The story of civilization* (11 vols.). Simon & Schuster. (Reprint 1993)
4. Arrhenius, G. (1970). *Evolution for space*. Almqvist & Wiksell.
5. Elliott, F. R. (1996). *Gender, family and society*. St. Martin's Press.
6. Pathak, V. S. (1992). *Desh ke abhidan* [देश के अभिधान]. Poovarth Sansthan.
7. Omprakash Pandey. (2005). *Drshtavya jagat ka yatharth* [दृष्टव्य जगत का यथार्थ]. Prabhat Prakashan.
8. Narendra Mohan. (2011). *Bhāratīya saṃskṛti* [भारतीय संस्कृति]. Prabhat Prakashan.
9. Dwivedi, K. D. (2014). *Vedon mein vijñān* [वेदों में विज्ञान]. Vishvabharti Anusandhan Parishad.
10. Mittal, S. C. (2018). *Bhāratīya saṃskṛti ke chār adhyāy* [भारतीय संस्कृति के चार अध्याय]. Akhil Bharatiya Itihaas Sankalan Yojana.
11. Aggarwal, V. S. (n.d.). *Pāṇini kālīn Bhāratvarṣ* [पाणिनि कालीन भारतवर्ष]. Prithvi Prakashan.
12. Bhagvadatt. (n.d.). *Vṛhad Bhārat kā itihās* [वृहद भारत का इतिहास]. Pranav Prakashan.
13. Ginsburg, Z. (n.d.). *New light on our numerals*. [Publisher not specified].

Continuous Assessment:

The assessment should be based on any four of the following:

1. Short Response Assignments where students should submit brief written reflections on selected themes (e.g., Dharma, Vasudhaiva Kutumbakam, Indian economic traditions).

2. Class Presentations either Individual or in groups on topics such as Indian numeral system, maritime trade, or Bharatvarsha in Epics.
3. Textual Analysis Exercises involving the close reading of passages from Mahābhārata, Smṛtis, or Arthaśāstra with interpretation of their socio-political ideas.
4. Practical Application/Case Study through small projects linking ancient ideas (e.g., Ayurveda, governance, environmental ethics) to modern Defence and security perspectives.
5. Class Participation and Discussion to encourage active engagement in discussions, debates and peer feedback sessions.
6. Project/Portfolio consisting of a compilation of assignments + a short essay or project demonstrating integrated understanding of Bharata Bodha.

Credits - 2
Hours - 30

VAC 4: Envisaging Vikasita Bhārata: Perspectives and Challenges

Course Objectives:

1. To familiarize students with the concept of Vikasita Bhārata and its vision for 2047.
2. To develop an understanding of the structural, economic, cultural and strategic pillars of India's transformation.
3. To examine the challenges and opportunities of inclusive and sustainable growth.
4. To build a sense of national pride, optimism and responsibility among students.
5. To integrate perspectives from Sanskrit traditions and Defence Studies in shaping the vision of Vikasita Bhārata.

Learning Outcomes:

After the completion of the course, the students will:

1. Comprehend the vision, philosophy and values underlying Vikasita Bhārata.
2. Analyse the dynamics of India's transformation in economy, society, technology and governance.
3. Critically evaluate policies and initiatives that empower farmers, youth and entrepreneurs.
4. Assess the role of sustainability, women-led development and India's soft power in shaping global leadership.
5. Apply the philosophy of Vikasita Bhārata to real-life contexts with optimism and responsibility.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 4	Envisaging Vikasita Bhārata: Perspectives and Challenges	02	0	0	02

Details of Course:

Unit I Vikasita Bhārata @2047: A Determination. **Credit 1**

- Concept and philosophy of Vikasita Bhārata.
- Indian perspective of development: Sarve Bhavantu Sukhinah.
- Civilisational ethos, cultural nationalism and strategic self-reliance.

Unit II Transforming the Nation. **Credit 1**

- PM Gati Shakti National Master Plan.
- Energy security: conventional and renewable.
- Digital transformation and e-governance.
- Case illustrations of national infrastructure and digital initiatives.

Unit III National Security and Vikasita Bhārata. **Credit 1**

- Importance of defence for national development.
- Atmanirbhara Bhārata and indigenous defence production.

- Modernisation of armed forces in the 21st century.
- Role of armed forces in nation building and disaster response.

Unit IV Sustainable and Inclusive Bhārata. Credit 1

- Climate challenges and the SDGs.
- Women-led development and Shiksha se Sarvodaya.
- India as a soft power in the 21st century.
- Emerging global role of India in peace, culture and sustainability.

Essential/Recommended Readings/Texts:

1. Government of India. (2023). *Economic survey 2023*. Ministry of Finance.
2. Gupta, A., & Gurumurthy, S. (Eds.). (2021). *Aatmanibhar Bharat: A vibrant and strong India*. Aryan Books International.
3. Vashisht, S. (Ed.). (2021). *Atma Nirbhar Bharat: Towards a self-reliant India*. Prabhat Prakashan.
4. Rao, T. C. (2024). *The architects of Viksit Bharat*. Prabhat Prakashan.

Additional Readings:

1. Harshe, R., & Seethi, K. M. (Eds.). (2009). *Engaging with the world: Critical reflections on India's foreign policy*. Orient Blackswan.
2. Khanna, S., & Moorthy, P. (2017). Analysing India's soft power functioning in the twenty-first century. *India Quarterly, 73*(3), 292–311.
3. Pant, H. V. (2019). *Indian foreign policy: The Modi era*. Har Anand Publications.
4. Kumar, S. (2023). Development strategy for future India and Atmanirbhar Bharat: A way forward. *Contemporary World Economy Journal, 1*(4).

Continuous Assessment:

The assessment should be based on any four of the following:

1. Short policy brief on one pillar of Viksit Bharat (e.g., digital transformation, energy, rural sector).
2. Group presentation on a case study (e.g., PM Gati Shakti, Start-up India, or Indus Water security).
3. Field report on a local MSME, village institution, or infrastructure project and its relevance to Viksit Bharat.
4. Debate on challenges to achieving Viksit Bharat by 2047.
5. Reflection essay on the role of Sanskrit values (Dharma, Sarvodaya, Sarve Bhavantu Sukhinah) in India's development.
6. Simulation or role-play on addressing a policy gap in Viksit Bharat initiatives.

Credits - 2
Hours - 30

VAC 5: Constitutional Values and Duties

Course Objectives:

1. To familiarize students with constitutional values and duties as guiding principles of Indian democracy
2. To relate these values to governance, ethics and commerce, especially in defence and corporate contexts.
3. To develop critical perspectives on the role of rights, duties and governance institutions in upholding constitutional morality.
4. To evaluate contemporary challenges-corruption, corporate fraud, inequality-through the lens of constitutional principles.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the meaning, sources and significance of constitutional values.
2. Assess the relationship between Fundamental Rights, DPSP and economic/defence policies.
3. Analyze the concept of Fundamental Duties and their link with corporate ethics and CSR.
4. Examine the role of governance institutions in maintaining constitutional morality.
5. Critically reflect on challenges to constitutional values in business and defence sectors.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 5	Constitutional Values and Duties	04	0	0	04

Details of Course:

Unit I Constitutional Values and Philosophical Foundations. **Credit 1**

- Meaning & significance of constitutional values.
- Preamble, justice, liberty, equality, fraternity.
- Constitutional morality and contemporary relevance in business, defence and governance.

Unit II Fundamental Rights and DPSP. **Credit 1**

- Scope & limitations of Fundamental Rights in commerce and governance.
- DPSPs and their role in economic and defence policies.
- Judicial interpretations and landmark cases.

Unit III Fundamental Duties and Corporate Responsibility. **Credit 1**

- Evolution & significance of Fundamental Duties.
- Duties and corporate social responsibility (CSR).
- Comparative perspective: duties in other democracies.

Unit IV Governance, Challenges and Way Forward. Credit 1

- Role of executive, legislature, judiciary in upholding constitutional values.
- Ethical governance, labour laws, economic inclusivity.
- Corporate accountability, PIL and judicial activism.
- Contemporary challenges: corruption, fraud, inequality; role of civil society and media.

Essential/Recommended Readings/Texts:

1. Ambedkar, B. R. (1979–2006). *Writings and speeches* (Vols. 1–17). Education Department, Government of Maharashtra.
2. Austin, G. (1999). *The Indian constitution: Cornerstone of a nation*. Oxford University Press.
3. Sathe, S. P. (2002). *Judicial activism in India: Transgressing borders and enforcing limits*. Oxford University Press.
4. Basu, D. D. (2018). *Introduction to the constitution of India* (23rd ed.). LexisNexis.
5. Jain, M. P. (2018). *Indian constitutional law* (8th ed.). LexisNexis.

Additional Readings:

1. Kashyap, S. C. (2011). *Our constitution: An introduction to India's constitution and constitutional law*. National Book Trust.
2. Choudhry, S., Khosla, M., & Mehta, P. B. (Eds.). (2016). *The Oxford handbook of the Indian constitution*. Oxford University Press.
3. De, R. (2018). *A people's constitution: The everyday life of law in the Indian republic*. Princeton University Press.
4. Government of India / SEBI / Ministry of Corporate Affairs. (n.d.). *Reports on corporate governance and CSR*. [Various reports].
5. Supreme Court of India. (n.d.). *Select judgments on Fundamental Rights, Directive Principles of State Policy and Duties*. [Legal judgments].

Continuous Assessment:

The assessment should be based on any four of the following:

1. Short Written Reflections of 500-word notes on constitutional values or duties in defence/business context.
2. Class Presentations on landmark cases or CSR initiatives upholding constitutional duties.
3. Case Study Analysis like judicial interventions in corruption/inequality affecting defence or commerce.
4. Group Discussion/Debate on topics like Fundamental Rights vs DPSP or CSR as Constitutional Duty.
5. Participation and Engagement by contributing to class dialogue and peer learning.
   Final Portfolio/Project consisting of compilation of assignments, case briefs and an essay on a chosen theme.

Credits - 2
Hours - 30

VAC 6: Environmental Security

Course Objectives:

1. To introduce students to the concept of environmental security and its growing importance in defence and strategic studies.
2. To examine the role of environmental change and resource scarcity in shaping conflicts and instability.
3. To evaluate climate change, disasters and migration as security challenges.
4. To analyse national and international policies and the role of defence forces in environmental management.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the evolution and scope of environmental security.
2. Analyse the role of natural resources and environmental stressors in conflict.
3. Evaluate climate change and disasters as "threat multipliers" for security.
4. Assess defence and policy responses to environmental challenges at national and global levels.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 6	Environmental Security	04	0	0	04

Details of Course:

Unit I Foundations of Environmental Security. **Credit 1**

- Concept, scope and evolution of environmental security.
- Traditional vs. non-traditional security threats.
- The environment–conflict–security nexus.
- Major environmental stressors: climate change, pollution, biodiversity loss, deforestation, desertification.
- Case Study: Environmental degradation and conflict in Darfur.

Unit II Resource Security and Conflict. **Credit 1**

- Water, food and energy as strategic resources.
- Resource scarcity and interstate rivalries.
- Strategic minerals and rare earths in defence industries.
- Resource competition in South Asia and Indo-Pacific.
- Case Studies: Indus Waters Treaty, Nile River Basin disputes, South China Sea resource contest.

Unit III Climate Change, Disasters and Defence Responses. **Credit 1**

- Climate change as a "threat multiplier."
- Sea-level rise and implications for coastal security and migration.

- Environmental refugees and border security pressures.
- Role of armed forces in humanitarian assistance and disaster relief (HADR).
- International frameworks: UNFCCC, Paris Agreement, India's environmental security strategies.
- Emerging Challenges: Arctic geopolitics, space debris, environmental terrorism.

Essential/Recommended Readings/Texts:

1. Barnett, J. (n.d.). *The meaning of environmental security: Ecological politics and policy in the new security era*. Zed Books.
2. Homer-Dixon, T. F. *Environment, scarcity and violence*. Princeton University Press.
3. Levy, M. A., et al. *Environment and security: Discourses and practices*. Earthscan.
4. Matthew, R. A., et al. *Global environmental change and human security*. MIT Press.

Additional Readings:

1. Busby, J. W. (n.d.). *Climate change and national security: An agenda for action*. Council on Foreign Relations.
2. Dalby, S. (n.d.). *Security and environmental change*. Polity Press.
3. Deudney, D. (n.d.). The case against linking environmental degradation and national security. *Millennium: Journal of International Studies*.
4. IPCC. (n.d.). *Assessment reports* (selected chapters on security implications).
5. Ministry of Defence (India). (n.d.). *Guidelines for environmental protection in the armed forces*.
6. UN Environment Programme. (n.d.). *Global environment outlook reports*.
7. Westing, A. H. (n.d.). *Environmental warfare: A technical, legal and policy appraisal*. SIPRI.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Policy briefs on climate-related security risks in a specific region.
2. Group presentation on an environmental conflict case study.
3. Simulation exercise on disaster response planning for armed forces.
4. Research paper on military adoption of renewable energy.
5. Field visit/report on a defence installation's environmental initiatives.

Credits - 1
Hours - 15

VAC 7: Pañcakośa: Holistic Development of Personality

Course Objectives:

1. To introduce the concept of the Pañcakośa as a framework for holistic personality development.
2. To cultivate awareness of physical, mental, intellectual and spiritual well-being in personal and professional life.
3. To foster resilience in coping with stress, peer pressure and life challenges.
4. To integrate Indian wisdom with modern practices for balanced living, defence discipline and leadership.

Learning Outcomes:

After the completion of the course, the students will:

1. Describe the five koshas as dimensions of personality.
2. Develop practices for physical fitness, mental calmness and emotional balance.
3. Apply discretion and self-awareness in decision-making.
4. Experience mindfulness, concentration and inner bliss (Anandamaya kosha).
5. Relate Pañcakośa principles to leadership and defence contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 7	Pañcakośa: Holistic Development of Personality	01	0	0	01

Details of Course:

Unit I Introduction to Pañcakośa and Personality. **Credit 1**

- Concept of Pañcakośa (five sheaths).
- Human personality: Annamaya, Pranamaya, Manomaya, Vijnanamaya, Anandamaya Koshas.
- Health: mental and physical dimensions.

Unit II Annamaya Kosha and Pranamaya Kosha. **Credit1**

- Physical body and five Karmendriyas.
- Balanced diet, exercise and discipline for body strength.
- Pranamaya Kosha: breath, pranayama, vitality and social conduct (charucharya).

Unit III Manomaya Kosha and Vijnanamaya Kosha. **Credit 1**

- Antahkarana (inner faculties) and Gyanendriyas.
- Managing the mind, emotions and thought clarity.
- Role of intellect in decision-making, reasoning and leadership.

Unit IV Anandamaya Kosha and Self-Realisation **Credit 1**

- Nature of bliss and self-realisation (Sat-Chit-Ananda).

- Meditation, yoga and mindfulness for inner strength.
- Application of Pañcakośa in modern life, defence discipline and stress management.

Essential/Recommended Readings/Texts:

1. Sadhale, G. S. (Comp.). (2014). *Upanisadvakya Mahakosa: An Upanishadic concordance taken from 239 Upanishads*. Chowkhamba Vidyabhawan.
2. Sartain, C. (2015). *The sacred science of yoga & the five koshas*. CreateSpace Independent Publishing.
3. Shankaracharya, A. (2019). *Vivekacudamani* (S. Turiyananda, Trans.). Sri Ramakrishna Math. (Original work translated 2019)
4. Iyengar, B. K. S. (2021). *Yoga: The path to holistic health*. Dorling Kindersley.
5. Nishchalananda, S. *Panchakosha: The five sheaths of the human being* [Kindle edition]

Additional Readings:

1. Iyengar, B. K. S. (1979). *Light on yoga*. Schocken Books.
2. Rangan, A., & Nagendra, H. R. (2012). *Yoga and personality*. Swami Vivekananda Yoga Prakashana.
3. Ministry of AYUSH, Government of India. (2018). *Yoga and wellness manuals*. Government of India.
4. DGNCC. (2020). *Cadet's handbook: Specialised subjects – Army, Navy and Air Wing*. Ministry of Defence.
5. The Taittiriya Upanishad. *Select verses on Panchakosha*.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Class Participation & Reflections by sharing insights from practice of yoga, pranayama, or meditation.
   Practical Demonstrations by performance of asanas, breathing techniques, or guided meditation.
2. Short Assignments like reflections on Pañcakośa applications to stress management or leadership.
3. Group Discussion/Debate on topics like "Mind vs Intellect in Defence Decision-Making."
4. Field/Practice Report like Visits to yoga/meditation centres and submission of an experiential report.
5. Final Project/Portfolio consisting of compilations of practices, reflections and short essays linking Pañcakośa to defence and holistic personality development.

Credits - 1
Hours - 15

VAC 8: Yoga and Happiness

Course Objectives:

1. To cultivate a pure and balanced mindset that reduces the tendencies of corruption, crime and injustice in society.
2. To instill resilience and mental health practices that help learners overcome addictions, depression and personal challenges.
3. To integrate yoga, meditation and Ayurveda into modern life for personal growth and professional excellence.
4. To enhance happiness, well-being and spiritual quotient for leadership and defence readiness.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate asanas, pranayama and kriya with competence.
2. Practice postures of Hatha Yoga, Raja Yoga and Laya Yoga.
3. Apply insights from Patanjali's Yoga Sutras to practical and ethical challenges.
4. Evaluate the significance of meditation in professional and defence contexts.
5. Summarize the importance of Ayurveda and yogic diet in sustaining health and productivity.
6. Enhance happiness and spiritual quotient through holistic practices.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 8	Yoga and Happiness	04	0	04	01

Details of Course:

Unit I Yoga, Mind and Body. **Credit 1**

- Concept, meaning and origin of Yoga.
- Mind–body connection and body management techniques (asana, pranayama, kriya).
- Principles of yogic practice and excellence in performance.

Unit II Yogic Traditions and Sutras. **Credit 1**

- Classical yogic schools: Hatha, Raja, Laya, Bhakti, Jnana, Karma Yoga.
- Patanjali Yoga Sutra and Ashtanga Yoga.
- Contemporary and emerging approaches to yoga.

Unit III Meditation and Inner Transformation. **Credit 1**

- Meditation: meaning, types and principles.
- Relation between body, breath and mind.
- Mantras, mudras and healing practices.
- Meditation in workplace, leadership and relationships.

Unit IV Yoga, Ayurveda and Happiness. **Credit 1**

- Yogic therapies and naturopathy.
- Ayurveda and yogic diet (sattvic food and lifestyle).
- Sources and models of happiness.
- Happiness hormones: dopamine, oxytocin, serotonin, endorphins. Spiritual quotient, self-introspection and positive thinking.

Essential/Recommended Readings/Texts:

1. Aurobindo, S. (1948). *The synthesis of yoga*. Sri Aurobindo Ashram Publication Department.
2. Taimni, I. K. (2005). *The science of yoga*. Theosophical Publishing House.
3. Verma, K. (2008). *Sri Sri Yoga*. Sri Sri Publications Trust.
4. Shankar, S. S. R. (2010). *25 ways to improve your life*. Sri Sri Publications Trust.
5. Shankar, S. S. R. (2010). *Ayurveda & breath*. Sri Sri Publications Trust.
6. Zope, S. A., & Zope, R. A. (2013). Sudarshan Kriya Yoga: Breathing for health. *International Journal of Yoga, 6*(1), 4–10.
7. Shankar, S. S. R. (2018). *Patanjali Yog Sutra*. Sri Sri Publications Trust.
8. Vivekananda, S. (2019). *The complete book of yoga: Karma Yoga, Bhakti Yoga, Raja Yoga, Jnana Yoga*. Fingerprint! Publishing.

Additional Readings:

1. Feuerstein, G. (2001). *The yoga tradition: Its history, literature, philosophy and practice*. Hohm Press.
2. Saraswati, S. S. (2008). *Asana, pranayama, mudra, bandha*. Bihar School of Yoga.
3. Nagendra, H. R. (2011). *Yoga for stress management*. Swami Vivekananda Yoga Prakashana.
4. Iyengar, B. K. S. (2015). *Light on yoga*. Schocken Books.
5. National Institute of Ayurveda. (2015). *Ayurveda for health and wellness*. NIA Publications.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Class Participation & Reflection after active engagement in yoga, meditation and discussions.
2. Practical Demonstration of asanas, pranayama and kriya.
3. Short Assignments like written reflection on Yoga Sutras and their modern relevance.
4. Case Study Presentation on application of meditation/Ayurveda in defence, business, or health.
5. Field/Practice Report like documentation of personal yoga or meditation practice.
6. Final Portfolio consisting of a compilation of experiences, reflections and applied learning on yoga and happiness.

Credits - 1
Hours - 15

VAC 9: People Management

Course Objectives:

1. To provide students with a theoretical and practical foundation in people management.
2. To develop an understanding of individual and group behavior within organizations.
3. To equip learners with skills in motivation, emotional intelligence, conflict resolution and leadership.
4. To integrate insights from both Indian wisdom traditions and modern management practices for holistic leadership.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the concepts of people management and distinguish leadership from management in the Indian and global context.
2. Apply motivational theories and emotional intelligence to analyze individual and group behavior.
3. Use tools like the Johari Window and Transactional Analysis to assess interpersonal dynamics.
4. Evaluate leadership styles drawing from Indian scriptures, leaders and Western theories.
5. Assess organizational change management strategies and approaches to overcoming resistance.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 9	People Management	01	0	0	01

Details of Course:

Unit I Foundations of People Management. **Credit 1**

- Concepts and importance of people management.
- Leadership vs. management.
- Role of managers in organizations.
- Diversity and demographics in the Indian workforce.
- Ethical considerations and values in management.

Unit II Individual and Group Behavior. **Credit 1**

- Personality, perception and attitude at work.
- Motivation theories and their Indian applications.
- Emotional intelligence in people management.
- Team dynamics and group behavior (Indian and global perspectives).
- Conflict resolution and negotiation skills.

Unit III Interpersonal Dynamics and Analysis. **Credit 1**

- Interpersonal behavior in organizations.

- Johari Window for self-awareness.
- Transactional Analysis: ego states, transactions, life positions.
- Group dynamics: stages, types and effectiveness.
- Group decision-making and conflict management.

Unit IV Leadership and Change Management **Credit 1**

- Leadership concepts, importance and traits of effective leaders.
- Leadership styles and theories: trait, behavioral, situational.
- Leadership lessons from Indian scriptures and leaders (e.g., Swami Vivekananda, Mahatma Gandhi, Subhash Chandra Bose).
- Organizational change management: drivers, resistance and strategies.
- Role of Organizational Development in modern contexts.

Essential/Recommended Readings/Texts:

1. Argyris, C. (1974). Personality vs. organization. *Organizational Dynamics, 3*(2), 18–34.
2. Goleman, D. (1998). *Working with emotional intelligence*. Bantam Books.
3. Colquitt, J. A., LePine, J. A., & Wesson, M. J. (2009). *Organizational behavior: Improving performance and commitment in the workplace* (International ed.). McGraw-Hill.
4. McShane, S. L., & Von Glinow, M. A. (n.d.). *Organizational behavior: Emerging knowledge and practice for the real world* (Latest ed.). McGraw-Hill.

Additional Readings:

1. Bernardin, H. J., & Russell, J. E. A. (2012). *Human resource management: An experiential approach* (6th ed.). McGraw-Hill.
2. Yukl, G. (2012). *Leadership in organizations* (8th ed.). Pearson.
3. Blume, B., Baldwin, T., & Ryan, K. (2013). Communication apprehension: A barrier to students' leadership, adaptability and multicultural appreciation. *Academy of Management Learning & Education, 12*(2), 158–172.
4. Sharma, R. N. (2016). *Indian ethos and leadership: Lessons from Indian scriptures*. Concept Publishing.
5. Robbins, S. P., & Judge, T. A. (2019). *Organizational behavior* (18th ed.). Pearson.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Class Participation is like active engagement in lectures, discussions and activities.
2. Case Study Analysis of Indian organizational practices on leadership or motivation.
3. Role-Play/Simulation through participation in group activities on conflict resolution or negotiation.
4. Presentations in workshops.
5. Field Report based on observation of people management practices in a local organization.

Credits - 1
Hours - 15

VAC 10: Emotional Intelligence

Course Objectives:

1. To introduce students to the concept, models and components of Emotional Intelligence (EI).
2. To help learners develop personal competence (self-awareness and self-management).
3. To foster social competence (empathy, collaboration, conflict resolution).
4. To equip students with tools to measure, enhance and apply EI for personal and professional growth.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate self-awareness, self-management, social awareness and relationship management.
2. Apply personal competence techniques to manage stress, anxiety and emotions.
3. Develop empathy and collaborative skills for effective teamwork and communication.
4. Use tools to measure emotional intelligence and design strategies for improvement.
5. Apply EI concepts to real-life challenges in personal, academic and professional settings.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
VAC 10	Emotional Intelligence	01	0	0	01

Details of Course:

Unit I Fundamentals of Emotional Intelligence. **Credit 1**

- Nature and significance of EI.
- Models of Emotional Intelligence: Ability, Trait and Mixed.
- Building blocks: Self-awareness, self-management, social awareness, and relationship management.

Unit II Personal Competence. **Credit 1**

- Self-Awareness: Recognizing feelings, strengths and weaknesses.
- Self-Management: Techniques for regulating emotions, stress, anxiety, fear and anger.
- Practical applications of mindfulness and relaxation.

Unit III Social Competence. **Credit 1**

- Social Awareness: Perspective-taking, empathy, compassion.
- Relationship Management: Effective communication, collaboration, teamwork.
- Conflict management: strategies for constructive resolution.

Unit IV Measurement and Development of EI. Credit 1

- Tools and measures of Emotional Intelligence (EQ-i, MSCEIT, etc.).
- Strategies for building EI in individuals and groups.
- Case studies: application of EI in leadership, defence and cross-cultural contexts.

Essential/Recommended Readings/Texts:

1. Bar-On, R., & Parker, J. D. A. (Eds.). (2000). *The handbook of emotional intelligence*. Jossey-Bass.
2. Sternberg, R. J. (Ed.). (2000). *Handbook of intelligence*. Cambridge University Press.
3. Goleman, D. (2005). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

Additional Readings:

1. Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings and implications. *Psychological Inquiry, 15*(3), 197–215.
2. Boyatzis, R. E., & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting with others through mindfulness, hope and compassion*. Harvard Business School Press.
3. Bradberry, T., & Greaves, J. (2009). *Emotional intelligence 2.0*. TalentSmart.
4. Petrides, K. V. (2011). *Trait emotional intelligence: Foundations, assessment and education*. Routledge.
5. Singh, D. (2015). *Emotional intelligence at work* (3rd ed.). Sage Publications.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Class Participation is like active engagement in lectures, discussions and activities.
2. Case Study Analysis of Indian organizational practices on leadership or motivation.
3. Role-Play/Simulation through participation in group activities on conflict resolution or negotiation.
4. Presentations in workshops.
5. Field Report based on observation of people management practices in a local organization.

श्रेयोङ्कः - 2
होराः - 30

VAC 11: श्रीअरविन्ददर्शनम् - 1

पाठ्यक्रमस्य उद्देश्यानि (Course Objectives)

1. श्रीअरविन्दस्य जीवनवृत्तस्य परिचयः।
2. श्रीअरविन्दस्य राजकीयजीवनवृत्तान्तस्य प्रतिपादनम्।
3. श्रीअरविन्दस्य दार्शनिकचिन्तनदृष्टेः अवबोधः।
4. श्रीअरविन्दप्रतिपादितस्य त्रिविधरूपान्तरणविषयस्य सामान्यपरिचयप्रदानम्।

अधिगमस्य परिणामाः (Learning Outcomes) अस्य पाठ्यक्रमस्य अध्ययनादनन्तरं छात्राः :-

1. श्रीअरविन्दस्य शिक्षण-जीवन-आश्रमादिजीवनवृत्तविषयान् प्रतिपादयिष्यन्ति।
2. श्रीअरविन्दस्य राजकीयजीवनस्य वृत्तान्तं निरूपयिष्यन्ति।
3. श्रीअरविन्दस्य दार्शनिकीं दृष्टिं सम्यक् व्याख्यास्यन्ति।
4. श्रीअरविन्दप्रतिपादितं त्रिविधरूपान्तरणविषयं दृढं वक्ष्यन्ति।

श्रेयोऽङ्कप्रारूपम् (Credit Framework)

पाठ्यक्रम-कूटाङ्कः (Course Code)	पाठ्यक्रमशीर्षकम् (Course Title)	पाठ्यक्रमस्य श्रेयोऽङ्कविभाजनम् (Credit Distribution of the Course)			श्रेयोऽङ्काः (Credits)
		व्याख्यानम् (Lecture)	अनुशिक्षणम् (Tutorial)	प्रशिक्षणम्/अभ्यासः (Practical/ Practice)	
VAC 11	श्रीअरविन्ददर्शनम् - 1	02	0	0	02

पाठ्यक्रमविवरणम् (Details of Course)

अन्वितिः १. श्रीअरविन्दः - जीवनवृत्तम्। **श्रेयोऽङ्कः १**

- जन्मनः शिक्षणपर्यन्तम्।
- वैवाहिकं राजकीयं च जीवनम्।
- तपोभूमिः पॉण्डेचरी।
- माता आश्रमश्च।

अन्वितिः २. श्रीअरविन्ददर्शनम्। **श्रेयोऽङ्कः १**

- दर्शनस्य व्युत्पत्तिः।
- समन्वितयोगः (Integral Yoga)।
- त्रिविधरूपान्तरणम् - मानसिकम् (Mental), आध्यात्मिकम् (Spiritual), अधिमानसिकञ्च (Supramental)
- अधिमानसिकचेतना (Supermind)

निर्धारिताः ग्रन्थाः (Essential/Recommended Readings/Texts)

1. शर्मा, यज्ञेश्वरदत्त, (2024), *श्रीअरविन्दचरितम्,* नवदेहली : केन्द्रीयसंस्कृतविश्वविद्यालयः।
2. श्रीअरविन्दः, (1908), *भवानी भारती,* पुडुचेरी : श्री ओरोबिन्दो आश्रम ट्रस्ट।
3. श्रीअरविन्दः, (1994), *श्रीअरविन्दोपनिषद्,* पुडुचेरी : श्री ओरोबिन्दो आश्रम ट्रस्ट।
4. श्रीअरविन्दः, *तान्त्रिकसिद्धिप्रकरणम्* - https://www.academia.edu/38924818/Trantrikasidhi_Prakaranam_by_Sri_Aurobindo)
5. Shri Aurobindo, (1997), *Complete Works of Sri Aurobindo (CWSA),* पुडुचेरी : श्री ओरोबिन्दो आश्रम ट्रस्ट।
6. त्रियुगिनारायण, *भगवत जीवन,* गोरखपुर : गीता प्रेस।

सहायकाः ग्रन्थाः (Additional Readings)

1. त्रिवेदी, रामनाथ, (2003), *श्रीअरविन्द का समन्वित योग*, वाराणसी : चौखम्बा सुरभारती प्रकाशन।
2. पाण्डेय, शशिधर, (2012), *श्रीअरविन्द और भारतीय संस्कृति*, नई दिल्ली : भारतीय विद्या भवन।
3. श्रीअरविन्द सोसायटी, (2015), *श्रीअरविन्द के वाङ्मय में मानव एकता का आदर्श*, पुडुचेरी : श्रीअरविन्द सोसायटी।
4. जोशी, किशोर, (2018), *श्रीअरविन्द के शैक्षिक विचार*, जयपुर : नीरज प्रकाशन।
5. मिश्र, राधाकान्त, (2019), *श्रीअरविन्द के दार्शनिक चिन्तन में भारतीय संस्कृति का समन्वय*, वाराणसी: सम्पूर्णानन्दसंस्कृतविश्वविद्यालयः।
6. Satprem. (1968). *Sri Aurobindo or The Adventure of Consciousness*. Pondicherry: Sri Aurobindo Ashram Press.
7. Nirodbaran. (1972). *Twelve Years with Sri Aurobindo*. Pondicherry: Sri Aurobindo Ashram Press.
8. Pandit, M. P. (1997). *Sri Aurobindo: His Life, Thought and Work*. Pondicherry: Dipti Publications.
9. Dalal, A. S. (Ed.). (2000). *A Greater Psychology: An Introduction to the Psychological Thought of Sri Aurobindo*. Pondicherry: Sri Aurobindo Ashram Press.
10. Heehs, P. (2008). *The Lives of Sri Aurobindo*. New York: Columbia University Press.

श्रेयोङ्कः - 2
होराः - 30

VAC 12: श्रीअरविन्ददर्शनम् - 2

पाठ्यक्रमस्य उद्देश्यानि (Course Objectives)

1. श्रीअरविन्दसाहित्यस्य परिचयः।
2. श्रीअरविन्दसाहित्यस्य विभिन्नायामानां परिचयपूर्वकं प्रतिपादनम्।
3. श्रीअरविन्दस्य ग्रन्थसम्पदः अवबोधः।
4. श्रीअरविन्दस्य संस्कृतरचनानां सामान्यपरिचयप्रदानम्।

अधिगमस्य परिणामाः (Learning Outcomes) अस्य पाठ्यक्रमस्य अध्ययनादनन्तरं छात्राः :-

1. श्रीअरविन्दस्य साहित्यिकविषयान् प्रतिपादयिष्यन्ति।
2. तत्त्वमीमांसा-व्याख्यान-काव्य-सामाजिक-सांस्कृतिक-राजनैतिकेत्यादीनां विभिन्नायामानां तदीयग्रन्थेभ्यः निरूपणं करिष्यन्ति।
3. श्रीअरविन्दस्य ग्रन्थसम्पदः व्याख्यास्यन्ति।
4. श्रीअरविन्दस्य संस्कृतरचनानां सामान्यं परिचयं वक्ष्यन्ति।

श्रेयोऽङ्कप्रारूपम् (Credit Framework)

पाठ्यक्रम-कूटाङ्कः (Course Code)	पाठ्यक्रमशीर्षकम् (Course Title)	पाठ्यक्रमस्य श्रेयोऽङ्कविभाजनम् (Credit Distribution of the Course)			श्रेयोऽङ्काः (Credits)
		व्याख्यानम् (Lecture)	अनुशिक्षणम् (Tutorial)	प्रशिक्षणम्/अभ्यासः (Practical/ Practice)	
VAC 12	श्रीअरविन्ददर्शनम् - 2	02	0	0	02

पाठ्यक्रमविवरणम् (Details of Course)

अन्वितिः १. श्रीअरविन्दसाहित्यम् (परिचयात्मकम्) **श्रेयोऽङ्कः १**

- श्रीअरविन्दसाहित्ये तत्त्वमीमांसा -
  - The Life Divine.
  - The Human Cycle.
  - The Ideal of Human Unity.
  - The Problem of Rebirth.
- श्रीअरविन्दसाहित्ये व्याख्यानानि -
  - Essays on the Geeta.
  - The Upanishads.
  - The Secret of the Veda.

- श्रीअरविन्दसाहित्ये सामाजिकं, राजनैतिकं, सांस्कृतिकं च चिन्तनम् -
    - बन्दे मातरम्।
    - कर्मयोगिन्।
    - The Renaissance in India.
    - War and Self-Determination.
    - Shri Aurobindo and the Nationalist Movement.
- श्रीअरविन्दसाहित्ये काव्यम् -
    - Savitri: A Legend and a Symbol.
    - Collected Poems.
    - Collected Plays and Stories.

अन्विति: २. श्रीअरविन्दस्य संस्कृतरचना:। **श्रेयोऽङ्क: १**

- भवानी भारती (चिता: श्लोका:- 1, 3, 4, 5, 7, 10, 12, 18, 27, 31, 38, 48, 50, 51, 54, 87, 98 & 99)
- श्रीअरविन्दोपनिषद्।
- तान्त्रिकसिद्धिप्रकरणम्।

निर्धारिता: ग्रन्था: (Essential/Recommended Readings/Texts)

1. शर्मा, यज्ञेश्वरदत्त, (2024), श्रीअरविन्दचरितम्, नवदेहली : केन्द्रीयसंस्कृतविश्वविद्यालय:।
2. श्रीअरविन्द:, (1908), भवानी भारती, पुडुचेरी : श्री ओरोबिन्दो आश्रम ट्रस्ट।
3. श्रीअरविन्द:, (1994), श्रीअरविन्दोपनिषद्, पुडुचेरी : श्री ओरोबिन्दो आश्रम ट्रस्ट।
4. श्रीअरविन्द:, तान्त्रिकसिद्धिप्रकरणम् - https://www.academia.edu/38924818/Trantrikasidhi_Prakaranam_by_Sri_Aurobindo)
5. Shri Aurobindo, (1997), Complete Works of Sri Aurobindo (CWSA), Pondicherry: Shri Aurobindo Ashram Trust.
6. त्रियुगिनारायण, भगवत जीवन, गोरखपुर : गीता प्रेस।

सहायका: ग्रन्था: (Additional Readings)

1. त्रिवेदी, रामनाथ, (2003), श्रीअरविन्द का समन्वित योग, वाराणसी : चौखम्बा सुरभारती प्रकाशन।
2. पाण्डेय, शशिधर, (2012), श्रीअरविन्द और भारतीय संस्कृति, नई दिल्ली : भारतीय विद्या भवन।
3. श्रीअरविन्द सोसायटी, (2015), श्रीअरविन्द के वाङ्मय में मानव एकता का आदर्श, पुडुचेरी : श्रीअरविन्द सोसायटी।
4. जोशी, किशोर, (2018), श्रीअरविन्द के शैक्षिक विचार, जयपुर : नीरज प्रकाशन।

5. मिश्र, राधाकान्त, (2019), श्रीअरविन्द के दार्शनिक चिन्तन में भारतीय संस्कृति का समन्वय, वाराणसी: सम्पूर्णानन्दसंस्कृतविश्वविद्यालयः।
6. Satprem. (1968). Sri Aurobindo or The Adventure of Consciousness. Pondicherry: Sri Aurobindo Ashram Press.
7. Nirodbaran. (1972). Twelve Years with Sri Aurobindo. Pondicherry: Sri Aurobindo Ashram Press.
8. Pandit, M. P. (1997). Sri Aurobindo: His Life, Thought and Work. Pondicherry: Dipti Publications.
9. Dalal, A. S. (Ed.). (2000). A Greater Psychology: An Introduction to the Psychological Thought of Sri Aurobindo. Pondicherry: Sri Aurobindo Ashram Press.
10. Heehs, P. (2008). The Lives of Sri Aurobindo. New York: Columbia University Press.

Credits - 2
Hours - 30

VAC 13: Foundations of Yoga Philosophy

Course Objectives:

1. To provide a foundational understanding of Indian philosophy, its scope, branches, and salient features.
2. To explore the relationship between Yoga and Indian philosophical traditions.
3. To introduce major Yoga philosophers of India including Patañjali, Swami Vivekananda, B.K.S. Iyengar, and Sri Aurobindo.
4. To develop awareness of the stages of Citta (mental states) and their significance in Yoga practice.
5. To acquaint students with various types of Yoga and the Eight-Fold (Ashtanga) Yoga system.
6. To provide insights into the yogic perspective in ancient Indian texts, including the Yoga Upaniṣad, Epics, Bhagavad Gita, Yoga Vasiṣṭha, and Narada Bhakti Sutras.

Learning Outcomes:

After the completion of the course, the students will:

1. Explain the basic principles and branches of Indian philosophy and the concept of Purushārtha Chatushtaya.
2. Describe the relationship between Yoga and Indian philosophy.
3. Identify and summarize contributions of major Indian Yoga philosophers.
4. Explain the stages of Citta and their significance for mental discipline.
5. Distinguish between different types of Yoga: Hatha, Raja, Jnana, Bhakti, Karma, Kundalini, Iyengar, Tantra, Ashtanga, and Integral Yoga.
6. Demonstrate understanding of the Eight-Fold Yoga (Yamas, Niyamas, Asanas, Prāṇāyāma, Pratyāhāra, Dhyāna, Dharana, Samādhi) and its application in classical texts.
7. Appreciate the integration of yogic principles in Sanskrit literature and Epics.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 13	Foundations of Yoga Philosophy	03	1	0	04

Details of Course:

Unit I Introduction to Indian Philosophy. **Credit 1**

- Philosophy: meaning, definitions, and scope.
- Salient features and branches of Indian philosophy.
- Brief introduction to Prasthāna Traye and Purushārtha Chatushtaya.
- Relationship between Yoga and Indian philosophy.

Unit II Introduction to Yoga Philosophy. **Credit 1**

- Major Yoga philosophers: Patañjali, Swami Vivekananda, B.K.S. Iyengar, Sri Aurobindo.
- Stages of Citta:
  - Ksipta (Restless)
  - Mudha (Torpid)
  - Viksipta (Distracted)
  - Ekāgra (Concentrated)
  - Niruddha (Restricted)

Unit III Types of Yoga. **Credit 1**

- Hatha Yoga.
- Raja Yoga.
- Jñāna Yoga.
- Bhakti Yoga.
- Karma Yoga.
- Kundalini Yoga.
- Iyengar Yoga.
- Tantra Yoga.
- Ashtanga Yoga.
- Integral Yoga.

Unit IV Eight-Fold Yoga (Ashtanga Yoga). **Credit 1**

- Yamas and Niyamas.
- Asanas and Prāṇāyāma.
- Pratyāhāra, Dharana, Dhyāna, Samādhi.
- Yoga in classical texts: Yoga Upaniṣad, Ramayana, Adhyatma Ramayana, Mahabharata, Bhagavad Gita, Yoga Vasiṣṭha, Narada Bhakti Sutras

Essential / Recommended Readings

1. Hiriyanna, M. (2008), *Essentials of Indian Philosophy.* Delhi: Motilal Banarsidas.
2. Hiriyanna, M. (2009). *Outlines of Indian Philosophy.* Delhi: Motilal Banarsidas.

Credits - 2
Hours - 30

VAC 14: Indian Culture and Heritage

Course Objectives:

1. To introduce the meaning, process, and evolution of Indian culture from early settlements to later historical developments.
2. To study the major religious, social, political, and artistic movements that shaped Indian civilization.
3. To understand cultural interactions, heritage traditions, and contributions across ancient to medieval India.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the meaning and process of culture and the development of early human settlements in India.
2. Gain knowledge of Mauryan society, Ashoka's Dhamma, and major cultural, economic, and religious trends.
3. Acquire a broad understanding of Indian culture, its heritage, and the evolution of society, art, architecture, and philosophy through different eras.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 14	Indian Culture and Heritage	03	1	0	04

Details of Course:

Unit I Meaning & Process of Culture and Early Human Settlements. Credit 1

- Concept of culture: Meaning and process.
- Sources of cultural history: Archaeology, Literature, Foreign accounts.
- Prehistoric and proto-historic cultures.
- Indus Civilization: Origin, extent, chronology, art, architecture, religion, society, and economy.
- Cultural changes during the later Vedic period.

Unit II Religious Movements & Cultural Configurations. Credit 1

- Religious movements of 6th–5th century BCE: Buddhism and Jainism.
- Social and economic transformations.
- Ashoka: Edicts and Dhamma.
- Mauryan polity, art, economy.
- Sangam age: Society and economy.
- Cultural developments under Sunga, Satavahana, Kushana.
- New trends in art, literature, religion; stupas, rock-cut architecture.

- Dharmaśāstra, Nāṭyaśāstra, Kāmasūtra, Pañcatantra.

Unit III Gupta & Later Classical Developments. Credit 1

- Gupta, Vakataka, Pallava age.
- Developments in literature, education, science.
- Religion, society, polity, economy.
- Architecture, sculpture, and painting traditions.

Unit IV Indo-Islamic Architecture & Mughal Cultural Trends. Credit 1

- Indo-Islamic architecture: Sultanate period and regional styles.
- Religious and philosophical developments: Bhakti, Acharya traditions, Sufism.
- Islamic cultural influences in India.
- Vijayanagara cultural contributions.
- Cultural innovations under the Mughals.
- Foundation of Sikhism and institution of Khalsa.
- Sawai Jai Singh's astronomical contributions.
- Spread of Christianity.
- Determinants of culture; Varna-Ashrama-Samskara framework.

Essential/Recommended Readings/Texts:

1. Ramshankar Tripathy, (1987) *History of Ancient India*, Motilal Banarsidass, 10th Edition.
2. R. S. Sharma, (2006). *India's Ancient Past*, Oxford University Press.

Credits - 2
Hours - 30

VAC 15: Public Health and Preventive Medicine

Course Objectives:

1. To Introduce the fundamental concepts, scope and evolution of public health and preventive medicine.
2. To Familiarize students with epidemiology, disease prevention strategies and determinants of health.
3. To Explain national and global health programs, policies and healthcare delivery systems.
4. To Develop the ability to apply preventive, promotive and community-based health measures.
5. To Integrate traditional Indian health knowledge (Ayurveda/Yoga) with modern public-health frameworks.
6. To Train students in health education, behavior change communication and community health assessment.

Learning Outcomes:

After the completion of the course, the students will:

1. Describe the principles and objectives of public health.
2. Explain levels of prevention—primordial, primary, secondary, tertiary—and their applications.
3. Understand the epidemiology of communicable and non-communicable diseases.
4. Analyze the role of nutrition, sanitation, environment and lifestyle in disease prevention.
5. Interpret national health policies, programs and healthcare structures.
6. Apply community-based assessment, survey methods and health-education strategies.
7. Integrate traditional preventive systems (Dinacharya, Ritucharya, Yoga, Rasayana) with modern public-health models.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 15	Public Health and Preventive Medicine	04	0	0	04

Details of Course:

Unit I Foundations of Public Health. **Credit 1**

- Definition, history and evolution of public health.
- Concepts of health and disease: physical, mental, social and spiritual health.
- Determinants of health: biological, environmental, socio-economic, lifestyle, cultural.
- Levels of prevention:
  - Primordial
  - Primary

  - Secondary
  - Tertiary
- Public health approaches: population-based vs. individual-based.
- Introduction to preventive medicine and community medicine.

Unit II Epidemiology & Disease Prevention. Credit 1

- Definition aims and types of epidemiology.
- Measures of disease frequency: incidence, prevalence, mortality rates.
- Study designs:
  - Descriptive
  - Analytical (case-control, cohort)
  - Experimental
- Epidemiology of:
  - Communicable diseases (TB, malaria, dengue, COVID-19, hepatitis)
  - Non-communicable diseases (diabetes, hypertension, cancer)
- Immunization: types, schedules, cold-chain management.
- Outbreak investigation and surveillance.
- Environmental and occupational health basics.

Unit III Preventive & Promotive Healthcare. Credit 1

- Nutrition and public health: malnutrition, obesity, micronutrient deficiencies.
- Water, sanitation, hygiene (WASH).
- Maternal and child health (MCH) services.
- School health, adolescent health, geriatric health.
- Lifestyle modification and behavior change models.

Traditional preventive systems:

- Ayurvedic principles of health: Dinacharya, Ritucharya, Sadvritta.
- Yoga for preventive health: Asana, Pranayama, Meditation.
- Rasayana & immunity enhancement.
- Integrative preventive medicine.

Unit IV Ayurveda in Vedic, Upanishadic & Purāṇic Literature. Credit 1

- Health-care delivery system in India:
  - Sub-center, PHC, CHC, district hospital.
  - Role of AYUSH in public health.
- National Health Mission (NHM).
- Key national programs:
  - RNTCP
  - NVBDCP
  - NACO
  - RMNCH+A
  - NPCDCS

  - National Immunization Program
- Health planning, international health agencies (WHO, UNICEF, UNFPA).
- Global health issues: pandemics, climate change, antimicrobial resistance.
- Digital health & telemedicine: scope and applications.
- Public health ethics and community participation.

Essential/Recommended Readings/Texts

1. Park, K. (2021). *Textbook of preventive and social medicine* (26th ed.). Bhanot Publishers.
2. Park, J. E., & Park, K. (2017). *Textbook of community medicine* (4th ed.). Bhanot Publishers.
3. Sundar Rao, P. S. S. (1996). *An introduction to epidemiology*. Prentice-Hall of India.
4. Detels, R., & McEwen, J. (Eds.). (2015). *Oxford textbook of public health* (6th ed.). Oxford University Press.

Additional Readings:

1. Ministry of Health & Family Welfare — National Program Guidelines.
2. World Health Organization. (2023). World health statistics report. WHO Press.
3. Murthy, K. R. S. (2000). Foundations of Ayurveda. SDM College of Ayurveda Publications.
4. Lad, V. (2002). Ayurveda: The science of self-healing. Lotus Press.
5. Telles, S., & Naveen, K. V. (2016). Yoga for public health. Swami Vivekananda Yoga University (SVYASA).

Credits - 2
Hours - 30

VAC 16: Yoga Sutras of Patanjali

Course Objectives:

1. To introduce students to the Yoga Darshana of Maharshi Patanjali and its philosophical foundations.
2. To provide an understanding of Chitta, its Vrittis, and methods for mental regulation (Nirodhopaya).
3. To explain the stages of Yoga practice, Samadhi, Ashtanga Yoga, and related Siddhis.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the concept of Chitta, its Vrittis, and classifications.
2. Explain Samadhi, Kriya Yoga, Kleshes, Prakriti-Purusha Samyoga, and Ashtanga Yoga.
3. Comprehend Dharana, Dhyana, Samadhi, Samyama, Siddhis, and Kaivalya.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 16	Yoga Sutras of Patanjali	03	1	0	04

Details of Course:

Unit I Introduction to Yoga. **Credit 1**

- Darshana of Patanjali and concept of Chitta
- Chitta Bhoomis, Chitta Vrittis, and their classification
- Citta-Vritti Nirodhopaya, Concept of Ishwar and Ishwar Pranidhana, Qualities of Ishwar
- Concept of Samprajnata, Citta Vikshepas (Antarayas), Citta-prasadanam

Unit II Samadhi Pada. **Credit 1**

- Concept of Yoganushasanam
- Types of Samadhi: Samprajnatah and Asamprajnatah
- Types of Samprajnatah Samadhi: Vitarka, Vichara, Ananda, Ashmita
- Samapatti: Savitraka, Nirvitraka, Savichara, Nirvichara
- Asamprajnatah Samadhi: Bhavapratyaya, Upayapratyaya

Unit III Sadhana Pada. **Credit 1**

- Kriya Yoga of Patanjali, theory of Kleshes, Dukhavada (Heya, Hetu, Hana, Hanopaya)
- Drishta-Nirupanam (Prakriti), Drastunirupanam (Purusha), Prakriti-Purusha Samyoga
- Introduction to Ashtanga Yoga, Concept of Asana, Pranayama, Pratyahara, and Siddhis

Unit IV Vibhuti and Kaivalya Pada. **Credit 1**

- Dharana, Dhyana, Samadhi, Samyama and their Siddhis
- Chitta Parinamah: Bhoota jaya, Indriya jaya, Satva purush anyatakhyati
- Vivek Jnana Nirupanam, Kaivalya Nirvachana
- Concept of Nirmana Chitta and four types of Karmas
- Nature of Kaivalyapada

Essential/Recommended Readings/Texts:

1. M.R. Yardi: (1970) *The Yoga of Patanjali*, Bhandarkar Oriental Research Institute, Poona.
2. Swami Ved Bharti: (2004). *Yogasutra of Patanjali (with the Exposition of Vyasa)* Vol I & II, New Delhi : M.L.B.D.

Credits - 2
Hours - 30

VAC 17: Environmental Hazards and Yoga

Course Objectives:

1. To understand biodiversity concepts, threats, and conservation strategies.
2. To study environmental pollution, policies, and sustainable development.
3. To relate environmental issues with human wellbeing and yoga-based perspectives.

Learning Outcomes:

After completion of the course, students will be able to:

1. Explain biodiversity concepts and factors affecting it.
2. Describe conservation strategies and environmental laws.
3. Identify major types of pollution and control measures.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 17	Environmental Hazards and Yoga	04	0	0	04

Details of Course:

Unit I Biodiversity. **Credit 1**

- Levels of biological diversity: genetic, species and ecosystem diversity
- Biogeographic zones of India
- Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation
- Endangered and endemic species of India
- Threats to biodiversity:
  - Habitat loss
  - Poaching of wildlife
  - Man-wildlife conflicts
  - Biological invasions

Unit II Conservation. **Credit 1**

- Conservation of biodiversity: In-situ and Ex-situ conservation
- Ecosystem and biodiversity services:
  - Ecological value
  - Economic value
  - Social value
  - Ethical value
  - Aesthetic value
  - Informational value

Unit III Environmental Pollution. **Credit 1**

- Environmental pollution: types, causes, effects and controls
- Air pollution
- Water pollution

- Soil pollution
- Noise pollution
- Nuclear hazards and human health risks
- Solid waste management: control measures of urban and industrial waste

Unit IV Policies and Practices. **Credit 1**

- Environmental Policies & Practices
- Sustainability and sustainable development
- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws:
    - Environment Protection Act
    - Air (Prevention & Control of Pollution) Act
    - Water (Prevention & Control of Pollution) Act
    - Wildlife Protection Act
    - Forest Conservation Act
- Nature reserves, tribal populations and rights, and human-wildlife conflicts in Indian context

Essential/Recommended Readings/Texts:

1. Carson, R. (1962). *Silent Spring*. Houghton Mifflin.
2. Heywood, V. H., & Watson, R. T. (1995). *Global Biodiversity Assessment*. Cambridge University Press.
3. Bharucha, E. (2003). *Textbook for Environmental Studies*. Bharati Vidyapeeth Institute of Environmental Education and Research & University Grants Commission.
4. UNEP. (2005). *Ecosystems and Human Well-being: Biodiversity Synthesis*. Millennium Ecosystem Assessment.
5. Nagendra, H., & Gadgil, M. (2013). *Biodiversity and ecosystem services: A socio-ecological perspective*. Cambridge University Press.
6. Sharma, A., & Singh, D. (2018). *Environmental pollution and human health*. New India Publishing House.

Credits - 2
Hours - 30

VAC 18: Environmental Awareness in Sanskrit Literature

Course Objectives:

1. To introduce the concept, scope, and modern environmental crises.
2. To understand the environmental background in Sanskrit literature, including the Vedic, Buddhist, and Jain perspectives.
3. To study eco-system concepts and environmental issues in Vedic literature.
4. To learn methods of environmental preservation and protection as outlined in Sanskrit texts.

Learning Outcomes:

After the completion of the course, the students will:

1. Realize their role as part of nature and understand the interconnectedness of all living beings.
2. Appreciate Sanskrit literature's contributions to environmental awareness and preservation.
3. Become mindful about sustainable use and conservation of natural resources.
4. Develop eco-conscious behavior that contributes to becoming responsible global citizens.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 18	Environmental Awareness in Sanskrit Literature	03	1	0	04

Details of Course:

Unit I Science of Environment. **Credit 1**

- Definition, scope, and role of environment in human civilization.
- Names for the science of environment: Ecology, Paryāvaraṇa, Prakṛti Vijñāna.
- Main components: living (Jaiva Jagat) and non-living (Bhoutika Padārtha) elements.
- Physical, biological, and cultural elements.
- Modern environmental challenges: global warming, climate change, ozone depletion, pollution, deforestation, water scarcity, natural calamities.

Unit II Environmental Background of Sanskrit Literature. **Credit 1**

- Importance of Sanskrit literature from the perspective of environmental science.
- Concept of Mother Earth and worship of rivers in Vedic literature.
- Preservation of nature: planting trees, water conservation.
- Buddhist and Jain ecological concepts: protection of trees, love for animals and birds.

Unit III Environmental Issues and Eco-system in Vedic Literature. **Credit 1**

- Divinity and coordination of natural powers.
- Cosmic order (ṛta) as a guiding environmental principle (Ṛgveda 10.85.1)

- Equivalent terms for environment: Vṛtavṛtā (Atharvaveda 12.1.52), Abhivāraḥ (1.32.4), Āvṛtāḥ (10.1.30), Parīvṛtā (10.8.31)
- Five basic elements: Earth, Water, Light, Air, Ether (Aitareya Upaniṣad 3.3)
- Three constituent elements (Chandānsi): Jala, Vāyu, Oṣadhi (Atharvaveda 18.1.17)
- Natural sources of water: rain (Divyāḥ), springs (Sravanti), wells and canals (Khanitrimāḥ), lakes (Svayamjāḥ), rivers (Samudrārthāḥ) – Ṛgveda 7.49.2

Unit IV Environment Preservation in Vedic Literature. Credit 1

- Five elementary sources of environmental preservation: Parvata, Soma, Vayu, Parjanya, Agni (Atharvaveda 3.21.10)
- Protection from Sun: Ṛgveda 1.191.1-16, Atharvaveda 2.32.1-6, Yajurveda 4.4,10.6.
- Creation of congenial atmosphere for life via union of herbs and sunlight (Atharvaveda 5.28.5)

Essential/Recommended Readings/Texts:

1. द्विवेदी, कपिल देव, (2004) वेदों में विज्ञान, भदोई : विख्याति अनुसंधान परिषद्
2. तिवारी, शशि, (2005), संस्कृतपाठ्यसंकलन (वैदिक वाङ्मय और पर्यावरण-प्रबन्धन पृष्ठ 205-235), दिल्ली : विद्यानिधि प्रकाशन

Credits - 2
Hours - 30

VAC 19: Basics of Indian Philosophy

Course Objectives:

1. To introduce students to the fundamental concepts of philosophy.
2. To provide a clear understanding of Indian philosophical traditions and schools.
3. To explore the relationship between Yoga and Indian philosophy.
4. To distinguish between Astika (orthodox) and Nastika (heterodox) schools of thought.

Learning Outcomes:

After the completion of the course, the students will:

1. Understand the meaning, definitions, and scope of philosophy.
2. Comprehend the salient features and branches of Indian philosophy.
3. Gain insights into Prasthāna-trayī and Purushartha Chatushtaya.
4. Develop awareness of the interconnection between Yoga and Indian philosophical thought.
5. Recognize the differences and key concepts of all major Darśana schools.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 19	Basics of Indian Philosophy	03	1	0	04

Details of Course:

Unit I Philosophy: Meaning, Definitions and Scope. **Credit 1**

- Concept of philosophy.
- Definitions and purposes of philosophical inquiry.
- Scope and relevance in human life.

Unit II Indian Philosophy: Features and Branches. **Credit 1**

- Salient features of Indian philosophy.
- Branches of Indian philosophy.
- Introduction to **Prasthāna-trayī** (Upaniṣads, Bhagavad Gita, Brahmasutras).
- Concept of **Purushartha Chatushtaya** (Dharma, Artha, Kama, Moksha).

Unit III Relationship Between Yoga and Indian Philosophy. **Credit 1**

- Yoga as an aspect of Indian philosophical thought.
- Interconnections between different philosophical schools and Yoga practices.
- Role of Yoga in personal and spiritual development.

Unit IV Astika and Nastika Philosophy. **Credit 1**

- Overview of **Astika** (orthodox) schools: Nyaya, Vaisheshika, Samkhya, Yoga, Mimamsa, Vedanta.
- Overview of **Nastika** (heterodox) schools: Buddhism, Jainism, Charvaka.

- Comparative study and introduction to all Darśana schools.

Essential/Recommended Readings/Texts:

1. Balasubramanian, R. (1994) *The Metaphysics of the Spirit*. New Delhi: Indian Council of Philosophical Research.
2. Barlingay, Surendra S. (1998) *Reunderstanding Indian Philosophy*. Delhi: D K Print-world.

Credits - 2
Hours - 30

VAC 20: Introduction to Psychology

Course Objectives:

1. To introduce students to foundational concepts and scientific approaches in psychology.
2. To develop an understanding of major subfields and perspectives in psychology.
3. To facilitate the application of psychological concepts in real-life situations.

Learning Outcomes:

After the completion of the course, students will be able to:

1. Define psychology and explain the major perspectives in the field.
2. Demonstrate understanding of research methods and subfields of psychology.
3. Apply foundational knowledge of perception, learning, and memory to daily life and cultural contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/Practice	
VAC 20	Introduction to Psychology	04	0	0	04

Details of Course:

Unit I Introduction to Psychology. **Credit 1**

- Definition of Psychology.
- Major Perspectives in Psychology.
- Research Methods of Psychology.
- Subfields of Psychology.

Unit II Perception. **Credit 1**

- Cultural Influences on Perception.
- Perceptual Processing.
- Perceptual Sets.
- Role of Attention; Perceptual Organization.
- Perceptual Constancies.
- Depth Perception.
- Illusions.

Unit III Learning. **Credit 1**

- Classical Conditioning.
- Principles and Applications.
- Operant Conditioning.
- Observational Learning.

- Cognitive Influences on Learning.

Unit IV Memory. **Credit 1**

- Definition and Models of Memory.
- Levels of Processing,
- Parallel Distributed Processing,
- Information Processing.
- Reconstructive Nature of Memory.
- Forgetting.
- Improving Memory.
- Culture and Memory.

Essential/Recommended Readings/Texts:

1. Baron, R., & Misra, G. (2016). *Psychology* (5th Ed.). New Delhi: Pearson Education India.
2. Ciccarelli, S. K., White, N. J., & Misra, G. (2017). *Psychology* (5th Ed., South Asian Edition). New Delhi: Pearson Education.
3. Kalat, J. W. *Introduction to Psychology: Concepts & Applications*. (Various editions)
4. Myers, D. G. *Exploring Psychology*. (Various editions)
5. Morgan, C. T., King, R. A., Weisz, J. R., & Soppler, J. (Various editions) *Introduction to Psychology*.

POOL OF ABILITY ENHANCEMENT COURSES

Credits - 4
Hours - 60

AEC 1: Sanskrit for Communication - I

Course Objectives:

1. To introduce students to Sanskrit as a spoken, living language.
2. To familiarize students with the fundamentals of phonetics, declensions, conjugations and sentence structures.
3. To develop skills for simple daily conversations in Sanskrit.
4. To integrate poetic verses and short stories for enhancing vocabulary and cultural understanding.

Learning Outcomes:

After the completion of the course, the students will:

1. Greet, introduce and converse in simple Sanskrit.
2. Recognize and apply basic declensions, conjugations and Sandhi.
3. Engage in simple daily conversations using correct grammatical forms in Sanskrit.
4. Apply and practice sentence construction in singular and plural forms.
5. Read and recite short verses and dialogues with comprehension.
6. Acquire basic vocabulary for Sandhi and Communication Practice.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 1	Sanskrit for Communication - I	04	0	0	04

Details of Course:

Unit I Introduction to Spoken Sanskrit. **Credit 1**

- Unique features of Sanskrit.
- Self-introduction and greetings.
- Introduction of declensions of pronouns and nouns in the three genders in the singular.
- Simple verb conjugations in the present and imperative.
- Sentence structure with basic question-words.

Unit II Declensions and Conjugations. **Credit 1**

- Introduction of remaining declensions.
- Introduction of the plural for pronouns, nouns and verb conjugations.
- Verb conjugations in the future and simplified past tense.
- Counting, days of the week and daily vocabulary.
- Practicing short dialogues.
- Verses for pronunciation and practice of declensions.

Unit III Conversations, Stories and Verses. **Credit 1**

- Plural declensions, alternative conjugations.
- Introduction to the dual for the pronouns and nouns learnt above.
- Practice with dialogues and role-plays.

- Recitation of poetic verses and stories.
- Summary of sentence structures in plural.

Unit IV Sandhi and Communication Practice. Credit 1

- Introduction to Sandhi rules (svarasandhi, vyanjanasandhi, visargasandhi).
- Application in reading and conversation.
- Comprehension of short stories.
- Oral exercises for fluency.

Essential/Recommended Readings/Texts:

1. Narendra. (1997). *Functional Sanskrit: Its communicative aspect*. Sri Aurobindo Ashram.
2. Bhatt, M. G. (1998). *Sandhih*. Samskrita Bharati.
3. Bhatt, M. G. (1999). *Karakam*. Samskrita Bharati.
4. Bhatt, M. G. (1999). *Samasah*. Samskrita Bharati.
5. Hegde, J. (2000). *Natvanijantam*. Samskrita Bharati.
6. Narendra. (2003). *Speak Sanskrit: The easy way*. Sri Aurobindo Ashram.
7. Abhyankar, K. V. (2005). *A simple Sanskrit grammar and exercises*. Bhandarkar Oriental Research Institute.
8. Sampad & Vijay. (2005). *The wonder that is Sanskrit*. Sri Aurobindo Society.
9. Narendra. (2016). *प्राथमिकं पाणिनीयम्*. Sanskritakaryalaya, Sri Aurobindo Ashram.
10. Sathe, R. (2010). *Learn Sanskrit the easy way*. Rashtriya Sanskrit Sansthan.
11. Shastri, V. K. (2012). *Teach yourself Samskrit: Prathama Diksha*. Rashtriya Sanskrit Sansthan.
12. Vishwasa. (2014). *Abhyāsa-pustakam*. Samskrita Bharati.
13. Narendra. (2018). *व्यावहारिकं पाणिनीयम्* - *Panini: for practical use*. Sanskritakaryalaya, Sri Aurobindo Ashram.
14. Choudry, A. (2018). *Introduction to basic spoken Sanskrit*. NPTEL–IIT Kharagpur.
15. Choudry, A. (2019). *Intermediate level of spoken Sanskrit*. NPTEL–IIT Kharagpur.
16. Choudry, A. (2020). *Advanced level of spoken Sanskrit*. NPTEL–IIT Kharagpur.
17. Saṁskṛta-vyavahāra-sāhasrī (Sanskrit-English). (n.d.). Samskrita Bharati.
18. Shatrishanajantamanjari. Samskrita Bharati.

Additional Readings:

1. Apte, V. S. (2004). *The student's guide to Sanskrit composition* (Originally published 1881). Prasad Prakashan.
2. Deshpande, M. (1997). *Samskrta-Subodhini: A Sanskrit primer*. University of Michigan Press.
3. Hegde, J. (2000). *Natvanijantam*. Samskrita Bharati.
4. Roy, A. (Ed.). (1977). *The message of the Gita: As interpreted by Sri Aurobindo*. Sri Aurobindo Ashram Trust.
5. Gokhale, S. (2008). *A handbook of Sanskrit conversation*. Samskrita Bharati.
6. Krishnamacharya, T. R. (2009). *Brihat Dhatu Rupavali*. Sanskrit Ebooks. Retrieved September 24, 2019, from http://www.sanskritebooks.org/2009/06/brihad-dhatu-rupavali/

7. Joshi, R. C. (2012). *Conversational Sanskrit: An easy guide*. Rashtriya Sanskrit Sansthan.
8. Satvlekar, S. D. (2013). *Sanskrit swayam shikshak*. Rajpal & Sons.
9. Kota, P. (2013). *Shubhashitani*. Retrieved September 25, 2019, from http://subhashitani.wordsofwisdom.in/2013/02
10. Bharati, V., & Dixit, P. (2016). *Spoken Sanskrit in practice*. Samskrita Bharati.
11. Tripathi, B. (2017). *Rupa Chandrika* [Digital version]. Internet Archive. Retrieved September 24, 2019, from https://archive.org/details/RupaChandrikaBrahmanandaTripathi
12. Vidyasagar, I. C. (2017). *Bryakaran-Kaumudi* [Digital version]. Internet Archive. Retrieved September 24, 2019, from https://archive.org/details/in.ernet.dli.2015.345069

Continuous Assessment:

The assessment should be based on any four of the following:

1. Weekly oral drills and recitation practice.
2. Vocabulary assignments (word lists with usage).
3. Short quizzes on declensions, tenses and Sandhi.
4. Role-play exercises (introductions, dialogues).
5. Oral comprehension tests based on stories/verses.

Credits - 4
Hours - 60

AEC 2: Foreign Language for Communication I - English

Course Objectives:

1. To build foundational skills in English communication with a focus on listening, speaking, reading and writing (LSRW).
2. To enhance comprehension and vocabulary for academic and professional purposes.
3. To introduce learners to effective oral and written communication techniques in English.
4. To strengthen confidence in using English in diverse contexts, including defence and intercultural interactions.
5. To align English learning with practical scenarios such as presentations, interviews and teamwork.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate foundational proficiency in English communication across listening, speaking, reading and writing (LSRW) skills.
2. Apply enhanced vocabulary and comprehension skills in academic, professional and practical contexts.
3. Demonstrate competence in basic English grammar, vocabulary and sentence structures.
4. Comprehend and summarize texts and spoken content in English.
5. Participate in conversations, discussions and debates in English with improved fluency.
6. Apply English communication strategies in defence and multicultural contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 2	Foreign Language for Communication I - English	04	0	0	04

Details of Course:

Unit I Foundations of English Communication. **Credit 1**

- Basics of English grammar and vocabulary building.
- Sentence construction, tenses and common expressions.
- Listening skills: understanding announcements, instructions and conversations.
- Everyday communication: greetings, introductions and small talk.

Unit II Reading and Writing Skills. **Credit 1**

- Reading comprehension: passages, stories and articles.
- Skimming and scanning techniques.
- Writing paragraphs, short essays and letters.
- Formal and informal communication (emails, applications, notices).

Unit III Oral Communication Skills. Credit 1

- Basics of English grammar and vocabulary building.
- Sentence construction, tenses and common expressions.
- Listening skills: understanding announcements, instructions and conversations.
- Everyday communication: greetings, introductions and small talk.

Unit IV Applied Communication in Defence & Academic Contexts. Credit 1

- Basics of English grammar and vocabulary building.
- Sentence construction, tenses and common expressions.
- Listening skills: understanding announcements, instructions and conversations.
- Everyday communication: greetings, introductions and small talk.

Essential/Recommended Readings/Texts:

1. Swan, M. (2005). *Practical English usage*. Oxford University Press.
2. Bhatnagar, N., & Bhatnagar, M. (2010). *Communications in English*. Pearson Education.
3. Murphy, R. (2012). *English grammar in use* (4th ed.). Cambridge University Press.
4. NPTEL. (2017). *English language for competitive exams*. IIT Madras.

Additional Readings:

1. Quirk, R., & Greenbaum, S. (1990). *A university grammar of English*. Longman.
2. Crystal, D. (2003). *English as a global language* (2nd ed.). Cambridge University Press.
3. Gairns, R., & Redman, S. (2008). *Oxford word skills: Vocabulary for learners of English*. Oxford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Class participation in role plays and dialogues.
2. Written assignments (essays, letters, reports).
3. Listening and reading comprehension tests.
4. Oral presentations and speeches.
5. Mid-semester test.
6. End-semester project: speech/presentation/report on a given theme.

Credits - 4
Hours - 60

AEC 3: Foreign Language for Communication I - Mandarin

Course Objectives:

1. To introduce learners to Mandarin phonetics (Pinyin system) and tones.
2. To enable students to carry out basic everyday conversations.
3. To introduce foundational Chinese characters for reading and writing.
4. To build awareness of Chinese cultural etiquette in communication.

Learning Outcomes:

After the completion of the course, the students will:

1. Demonstrate understanding of Mandarin phonetics, including the Pinyin system and tonal pronunciation.
2. Engage in basic everyday conversations in Mandarin using appropriate vocabulary and sentence structures.
3. Recognize, read and write a foundational set of Chinese characters for practical communication.
4. Display awareness of essential Chinese cultural norms and etiquette in interpersonal communication.
5. Use basic sentence structures in present tense for survival communication.
6. Recognize cultural norms in greetings, festivals and social interactions.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 3	Foreign Language for Communication I - Mandarin	04	0	0	04

Details of Course:

Unit I Foundations of Mandarin. **Credit 1**

- Introduction to Mandarin and its writing system.
- Pinyin system, initials, finals, tones (4 tones + neutral)
- Greetings, introductions, nationality, numbers, dates, time.
- Basic sentence structure: S + V + O.

Unit II Vocabulary & Functional Grammar. **Credit 1**

- Personal information (family, age, profession, hobbies)
- Particles (ma, ne, de)
- Yes/no questions and basic negation (bù, méi)
- Radicals: learning to recognize and write basic characters.

Unit III Everyday Communication. **Credit 1**

- Talking about food, shopping and money.
- Directions and transport.

- Classroom language and daily activities.
- Writing short sentences in characters (introductions, shopping lists, daily schedule)

Unit IV Culture & Practice. **Credit 1**

- Chinese festivals (Spring Festival, Mid-Autumn Festival)
- Role-plays: at the market, ordering food, asking directions.
- Short dialogues and stories in Pinyin + Characters.
- Final oral project: 自我介绍 / Self-introduction.

Essential/Recommended Readings/Texts:

1. Liu, X. (2010). *New practical Chinese reader* (Vols. 1–2). Beijing Language and Culture University Press.
2. Ross, C., & Ma, J.-h. S. (2014). *Modern Mandarin Chinese grammar: A practical guide* (2nd ed.). Routledge.
3. Zhao, Y. (2013). *Mandarin Chinese characters made easy*. Sinolingua Press.
4. Wiedenhof, J. (2015). *A grammar of Mandarin*. John Benjamins.
5. Zhao, J.-S. (2016). *Mandarin Chinese: A functional reference grammar*. Oxford University Press.
6. Cheng, Tsui Company. (2017). *Integrated Chinese, Level 1 Part 1 & 2*. Cheng & Tsui.
7. Roy, S., et al. (2020). *Mandarin Chinese for beginners* [SWAYAM MOOC]. Ministry of Education, Government of India.

Additional Readings:

1. Arch Chinese. (n.d.). *Learn Chinese characters online*. Retrieved September 2025, from https://www.archchinese.com
2. Chinese Pronunciation Wiki. (2018). *Mandarin HQ*. Retrieved September 2025, from https://chinesepronunciationwiki.com
3. Chou, C.-p., Wang, J., & Chiang, J. (2016). *Integrated Chinese, Volume 1 (Textbook and Workbook)* (4th ed.). Cheng & Tsui.
4. DeFrancis, J. (2016). *Beginning Chinese reader*. Yale University Press.
5. Learn Chinese with BBC Languages. (2010). BBC. Retrieved September 2025, from http://www.bbc.co.uk/languages/chinese/
6. Po-Ching, Y., & Rimmington, D. (2015). *Chinese: An essential grammar*. Routledge.
7. Wu, Z. (2015). *Chinese made easy for beginners*. Sinolingua Press.
8. Zhang, H. (2012). *Mandarin Chinese: A functional reference grammar*. Yale University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Weekly Tone & Pronunciation Drills by creating audio recording submissions checked for tonal accuracy.
2. Character Writing Portfolio by writing 15–20 characters per week with stroke order and example sentences.
3. Listening Journals to write a summary of short Mandarin dialogues, news, or songs.
4. Role-Plays & Skits of everyday life situations graded on fluency and comprehension.
5. Short Writing Assignments of diary entries, simple essays and conversations in characters + Pinyin.

6. Class Presentations like introducing oneself, family, or cultural topics in Mandarin.
7. Final Project like an oral self-presentation and written report (200–250 characters).

Credits - 4
Hours - 60

AEC 4: Foreign Language for Communication I - French

Course Objectives:

1. To introduce students to the basics of the French language (alphabet, sounds, greetings, self-introduction).
2. To develop the ability to handle simple everyday interactions in spoken and written French.
3. To provide an understanding of cultural etiquette and norms in francophone societies.
4. To build foundational vocabulary and grammar for communication.

Learning Outcomes:

After the completion of the course, the students will:

1. Recognize and use the basics of French language, including the alphabet, sounds, greetings and self-introduction.
2. Communicate effectively in simple everyday situations using both spoken and written French.
3. Demonstrate an understanding of cultural etiquette and social norms in francophone societies.
4. Apply foundational vocabulary and grammar structures to construct meaningful sentences in French.
5. Engage in simple conversations on daily life, family, hobbies and travel.
6. Comprehend simple cultural texts and media in French.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 4	Foreign Language for Communication I - French	04	0	0	04

Details of Course:

Unit I Foundations of French. **Credit 1**

- Alphabet, accents and pronunciation.
- Greetings and introductions.
- Numbers 1–20, days of the week.

Unit II Talking about Self and Others. **Credit 1**

- Introducing oneself and family.
- Asking for and giving personal details (name, nationality, profession)
- Personal pronouns and basic verbs (être, avoir)

Unit III Everyday Situations. **Credit 1**

- Expressions for shopping, dining and transport.
- Polite requests and common courtesies (s'il vous plaît, merci, pardon)
- Simple sentence construction.

Unit IV Culture and Communication. **Credit 1**

- Festivals and social customs in France.
- French etiquette in greetings and conversations.
- Short dialogues and role-play practice.

Essential/Recommended Readings/Texts:

1. Capelle, G., & Menand, R. (2009). *Le Nouveau Taxi! 1: Méthode de français*. Hachette.
2. Girardet, J., & Pécheur, J. (2012). *Campus 1: Méthode de français*. Clé International.
3. Srivastava, D. (2020). *Parler de soi / Talking about oneself* [MOOC]. IGNOU–SWAYAM.
4. Srivastava, D. (2020). *Échanger / Interactions* [MOOC]. IGNOU–SWAYAM.

Additional Readings:

1. BBC. (2010). *BBC Languages – French*. Retrieved September 2025, from https://www.bbc.co.uk/languages/french/
2. Delfosse, M.-J. (2013). *Vocabulaire progressif du français: Niveau débutant*. Clé International.
3. Grégoire, M., & Thiévenaz, O. (2010). *Grammaire progressive du français: Niveau débutant*. Clé International.
4. Mauger, G. (1995). *Cours de langue et de civilisation françaises* (Vol. 1). Hachette.
5. Centre National d'Enseignement à Distance. (n.d.). *Le Point du FLE*. Retrieved September 2025, from https://www.lepointdufle.net

Continuous Assessment:

The assessment should be based on any four of the following:

1. Oral Drills for improving regular pronunciation and dialogue practice in class.
2. Vocabulary Logs for students to maintain a personal vocabulary journal with meanings.
3. Listening Comprehension of short audio/video clips with exercises.
4. Role Play Assignments including greetings, self-introductions, asking for objects, making plans.
5. Short Cultural Presentation on French festivals or traditions compared to Indian ones.
6. Written Exercises of fill-in-the-blanks, sentence construction, short dialogues.

Credits - 4
Hours - 60

AEC 5: Foreign Language for Communication I - Russian

Course Objectives:

1. To introduce Russian sounds, Cyrillic script and basic grammar structures.
2. To integrate listening, speaking, reading and writing skills from the beginning.
3. To enable students to communicate in basic everyday situations.
4. To prepare students to handle simple texts and conversations in Russian.

Learning Outcomes:

After the completion of the course, the students will:

1. Recognize and use Russian sounds, the Cyrillic script and apply basic grammar structures.
2. Communicate effectively in basic everyday situations using simple Russian expressions and sentences.
3. Demonstrate integrated proficiency in listening, speaking, reading and writing in Russian at a foundational level.
4. Read, understand and respond to simple texts and conversations in Russian.
5. Use Russian verbs (present tense, aspects) and nouns (gender, singular/plural).
6. Understand basic spoken Russian in familiar contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 5	Foreign Language for Communication I - Russian	04	0	0	04

Details of Course:

Unit I Foundations of Russian Language. **Credit 1**

- Cyrillic alphabet, pronunciation, voiced/voiceless consonants.
- Greetings, introductions, polite expressions.
- Gender in nouns, personal pronouns, interrogatives.
- Listening drills: identifying sounds and words.

Unit II Everyday Communication. **Credit 1**

- Verb conjugations in present tense.
- Talking about daily routines, family, friends.
- Expressing location, place of action.
- Short role-plays (introducing, thanking, asking questions).

Unit III Expanding Grammar & Expression. **Credit 1**

- Verbs of motion and their conversational use.
- Aspects of verbs (perfective vs. imperfective).
- Direct objects: animate/inanimate.

- Listening comprehension: short dialogues.

Unit IV Applied Russian for Daily Life. **Credit 1**

- Expressions of time, wishes and simple complex sentences.
- Possession and negation.
- Numerals, adjectives and comparatives.
- Oral presentations: "About Myself" / "My Day."

Essential/Recommended Readings/Texts:

1. Bhaskar, S. (2021). *Russian Language Course Material* [SWAYAM].
2. Brown, N. J. (1996). *The new Penguin Russian course: A complete course for beginners*. Penguin Books.
3. Golub, A. (2009). *The everything learning Russian book*. Adams Media.
4. Karavanova, O. (2016). *Sputnik: An introductory Russian language textbook*. Wisconsin University Press.
5. Sokolsky, A. (2012). *Russian in exercises*. Russky Yazyk Publishers.
6. Wade, T. (2010). *A comprehensive Russian grammar* (3rd ed.). Wiley-Blackwell.

Additional Readings:

1. BBC. (2010). *BBC Russian language resources*. Retrieved September 2025, from http://www.bbc.co.uk/russian/learning
2. Brown, J. W. (2013). *Russian made simple: Learn to speak and understand Russian quickly and easily*. Crown Publishing.
3. Duolingo. (2018). *Duolingo Russian course*. Retrieved September 2025, from https://www.duolingo.com
4. Green, A. (2007). *Russian pronunciation and intonation*. Russky Yazyk Publishers.
5. Kostromina, I. (2014). *Russian grammar in use*. Red Square Press.
6. Offord, D. (1992). *Modern Russian: An advanced grammar course*. Cambridge University Press.
7. RussianforEveryone.com. (2015). *Russian for everyone*. Retrieved September 2025, from http://www.russianforeveryone.com
8. RussianLessons.Net. (n.d.). *Learn Russian for free*. Retrieved 2024, from https://www.russianlessons.net
9. Offord, D. (2005). *Using Russian: A guide to contemporary usage* (2nd ed.). Cambridge University Press.
10. Oxford University Press. (2010). *Oxford Russian dictionary* (4th ed.). OUP.
11. MasterRussian.com. (n.d.). *Learn Russian online*. Retrieved 2024, from https://masterrussian.com

Continuous Assessment:

The assessment should be based on any four of the following:

1. Weekly oral practice (dialogue performance).
2. Vocabulary quizzes (Russian–English, English–Russian).
3. Listening comprehension tests (short audio).
4. Written assignments (short passages, personal notes).
5. Group role-play presentations.
6. Mid-term and end-term oral proficiency tests.

Credits - 4
Hours - 60

AEC 6: Sanskrit for Communication - II

Course Objectives:

1. To advance grammatical knowledge of Sanskrit for fluency in conversation.
2. To strengthen the understanding of the syntax and sentence building blocks.
3. To introduce Sanskrit literature, shloka analysis and applied grammar.
4. To enable students to participate in debates, discussions and speeches in Sanskrit.

Learning Outcomes:

After the completion of the course, the students will:

1. Apply advanced grammatical knowledge of Sanskrit to achieve greater fluency in spoken communication.
2. Demonstrate a strengthened understanding of Sanskrit syntax and sentence construction.
3. Analyze Sanskrit literature and shlokas, using applied grammar for interpretation.
4. Participate confidently in debates, discussions and speeches in Sanskrit.
5. Apply correct syntax rules in written and spoken Sanskrit.
6. Translate between Sanskrit and English with accuracy and vice versa.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 6	Sanskrit for Communication - II	04	0	0	04

Details of Course:

Unit I Grammar Foundations and Sentence Building. **Credit 1**

- Revision of the declensions of the pronouns and nouns learnt.
  for the three genders in the singular, dual and plural.
- Learning the technical terms for the कारकs (cases) with definitions and examples.
- Revision of परस्मैपदी verbs in the present, future, simplified past and Imperative forms.
- Application in conversations.
- Verses with all Cases or विभक्ति forms.

Unit II Verb Forms and Advanced Vocabulary. **Credit 1**

- Introduction of declension of pronouns and nouns with different kinds of endings.
- Introduction of आत्मनेपदी conjugation for the simple verbs.
- Introduction of the 10 groups of verbs.
- Vocabulary expansion.
- Practice with dialogues and narratives.

Unit III Sandhi, Dhatus, Voices and Syntax. **Credit 1**

- Revision of the three types of Sandhi. with their rules and examples.

- Introduction of the conjugation of the 10 groups. in the 10 लकाराः.- Tenses and moods with their सूत्रs.
- Introduction of the three वाच्यs or voices: कर्तृ, कर्म and भाव.
- Practice in daily conversations and in texts.

Unit IV Applied Grammar and Spoken Practice. Credit 1

- Introduction to the वृत्तिs and their प्रत्ययs or suffixes.
- Introduction to the concept and types of समासs for efficient communication.
- Introduction to the different अव्ययs.
- Steps for doing the अव्ययs of shlokas.
- Debate, storytelling, dramatization.
- Defence-related conversational Sanskrit (commands, instructions).

Essential/Recommended Readings/Texts:

1. Abhyankar, K. V. (2005). *A simple Sanskrit grammar and exercises*. Pune: Bhandarkar Oriental Research Institute.
2. Bhatt, M. G. (1999). *Karakam*. Bengaluru: Samskrita Bharati.
3. Bhatt, M. G. (1999). *Samasah*. Bengaluru: Samskrita Bharati.
4. Bhatt, M. G. (1998). *Sandhih*. Bengaluru: Samskrita Bharati.
5. Choudry, A. (2018). *Introduction to basic spoken Sanskrit*. NPTEL–IIT Kharagpur.
6. Choudry, A. (2019). *Intermediate level of spoken Sanskrit*. NPTEL–IIT Kharagpur.
7. Choudry, A. (2020). *Advanced level of spoken Sanskrit*. NPTEL–IIT Kharagpur.
8. Hegde, J. (2000). *Natvanijantam*. Bengaluru: Samskrita Bharati.
9. Narendra. (1997). *Functional Sanskrit: Its communicative aspect*. Pondicherry: Sri Aurobindo Ashram.
10. Narendra. (2003). *Speak Sanskrit: The easy way*. Pondicherry: Sri Aurobindo Ashram.
11. Narendra. (2016). *प्राथमिकं पाणिनीयम्*. Sanskritakaryalaya, Sri Aurobindo Ashram.
12. Narendra. (2018). *व्यावहारिकं पाणिनीयम् - Panini: For practical use*. Sanskritakaryalaya, Sri Aurobindo Ashram.
13. Sampad & Vijay. (2005). *The wonder that is Sanskrit*. Pondicherry: Sri Aurobindo Society.
14. Saṁskṛta-vyavahāra-sāhasrī (Sanskrit-English). (n.d.). New Delhi: Samskrita Bharati.
15. Sathe, R. (2010). *Learn Sanskrit the easy way*. New Delhi: Rashtriya Sanskrit Sansthan.
16. Shastri, V. K. (2012). *Teach yourself Samskrit: Prathama Diksha*. Delhi: Rashtriya Sanskrit Sansthan.
17. Shatrishanajantamanjari. (n.d.). Bengaluru: Samskrita Bharati.
18. Vishwasa. (2014). *Abhyāsa-pustakam*. New Delhi: Samskrita Bharati.

Additional Readings:

1. Apte, V. S. (2004). *The student's guide to Sanskrit composition* (Original work published 1881). Pune: Prasad Prakashan.
2. Bharati, V., & Dixit, P. (2016). *Spoken Sanskrit in practice*. Mysore: Samskrita Bharati.
3. Deshpande, M. (1997). *Samskrta-subodhini: A Sanskrit primer*. Ann Arbor: University of Michigan Press.
4. Gokhale, S. (2008). *A handbook of Sanskrit conversation*. Bangalore: Samskrita Bharati.
5. Hegde, J. (2000). *Natvanijantam*. Bengaluru: Samskrita Bharati.

6. Joshi, R. C. (2012). *Conversational Sanskrit: An easy guide*. New Delhi: Rashtriya Sanskrit Sansthan.
7. Kota, P. (2013). *Shubhashitani*. Retrieved September 25, 2019, from http://subhashitani.wordsofwisdom.in/2013/02
8. Krishnamacharya, T. R. (2009). *Brihat dhatu rupavali*. Sanskrit Ebooks. Retrieved September 24, 2019, from http://www.sanskritebooks.org/2009/06/brihad-dhatu-rupavali/
9. Roy, A. (Ed.). (1977). *The message of the Gita: As interpreted by Sri Aurobindo*. Pondicherry: Sri Aurobindo Ashram Trust.
10. Satvlekar, S. D. (2013). *Sanskrit swayam shikshak*. Delhi: Rajpal & Sons.
11. Tripathi, B. R. (2017). *Rupa Chandrika*. Internet Archive. Retrieved September 24, 2019, from https://archive.org/details/RupaChandrikaBrahmanandaTripathi

Continuous Assessment:

The assessment should be based on any four of the following:

1. Weekly oral drills and recitation practice.
2. Vocabulary assignments (word lists with usage).
3. Short quizzes on declensions, tenses and Sandhi.
4. Role-play exercises (introductions, dialogues).
5. Oral comprehension tests based on stories/verses.

Credits - 4
Hours - 60

AEC 7: Foreign Language for Communication II - English

Course Objectives:

1. To advance the learners' proficiency in English communication from foundational to professional levels.
2. To develop strong presentation, debate and analytical communication skills.
3. To refine writing for academic, professional and defence contexts.
4. To enhance fluency, accuracy and confidence in real-life applications of English.

Learning Outcomes:

After the completion of the course, the students will:

1. Communicate effectively in academic, professional and defence scenarios.
2. Demonstrate proficiency in debates, interviews and presentations.
3. Write advanced texts: reports, essays, policy briefs and case analyses.
4. Apply critical thinking in oral and written communication.
5. Adapt English for cross-cultural and defence-related interactions.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 7	Foreign Language for Communication II - English	04	0	0	04

Details of Course:

Unit I Advanced Grammar and Vocabulary. **Credit 1**

- Complex sentence structures, conditional sentences, passive voice.
- Advanced vocabulary for academic and defence communication.
- Idioms, phrasal verbs and collocations.

Unit II Oral and Interactive Communication. **Credit 1**

- Report writing, case studies and technical writing.
- Essay writing: argumentative and analytical essays.
- Defence-related writing: situation reports (SITREPs), briefings, summaries.
- Citation and referencing basics.

Unit III Oral Communication Skills. **Credit 1**

- Debates, discussions and persuasive speaking.
- Leadership communication and team coordination.
- Mock interviews and press briefings.
- Communication ethics and intercultural dialogue.

Unit IV Applied Communication in Defence and Leadership Contexts **Credit 1**

- English for diplomacy, negotiation and cross-cultural missions.
- Case studies: speeches by leaders in global defence/peace contexts.

- Group project: prepare and deliver a formal presentation on a defence or security issue.

Essential/Recommended Readings/Texts:

1. Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
2. NPTEL. (2018). *Developing soft skills and personality*. IIT Kanpur.
3. NPTEL. (2019). *English for oral communication*. IIT Roorkee.
4. Quirk, R., & Greenbaum, S. (1990). *A university grammar of English*. London: Longman.

Additional Readings:

1. Blundell, J., Higgens, J., & Middlemiss, N. (2005). *Function in English*. Oxford: Oxford University Press.
2. Crystal, D. (2005). *The stories of English*. London: Penguin.
3. Redman, S. (2011). *English vocabulary in use: Upper intermediate*. Cambridge: Cambridge University Press.
4. Swan, M. (2005). *Practical English usage*. Oxford: Oxford University Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Participation in debates, role plays and simulations.
2. Written assignments: essays, reports, briefs.
3. Oral communication assessments: speeches, mock interviews.
4. Listening and comprehension tests.
5. Mid-semester examination.
6. End-semester group project: defence-oriented presentation/report.

Credits - 4
Hours - 60

AEC 8: Foreign Language for Communication II - Mandarin

Course Objectives:

1. To strengthen spoken fluency and listening comprehension in Mandarin.
2. To expand grammatical competence with past and future markers.
3. To build competence in reading/writing 350–400 characters.
4. To deepen cultural understanding and practical communication skills.

Learning Outcomes:

After the completion of the course, the students will:

1. Engage in conversations about travel, studies, food and hobbies.
2. Read and write short paragraphs (emails, notes, diary entries).
3. Use aspect markers (le, zài, guò) to express past, present and ongoing actions.
4. Express opinions, preferences and simple comparisons.
5. Demonstrate practical fluency in social and academic contexts.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 8	Foreign Language for Communication II - Mandarin	04	0	0	04

Details of Course:

Unit I Strengthening Grammar & Vocabulary. **Credit 1**

- Review of tones, radicals and basic structures.
- Aspect markers: le, zài, guò.
- Measure words (gè, běn, zhī, kuài)
- Vocabulary: weather, health, university life.

Unit II Conversations in Context. **Credit 1**

- Making plans (future: yào, huì)
- Talking about past experiences (wǒ qùguò…)
- Travel, booking tickets, hotel, transport.
- Food culture: restaurant dialogues.

Unit III Expanding Communication. **Credit 1**

- Expressing opinions, likes/dislikes (xǐhuān, juéde)
- Comparisons (bǐ)
- Family and society in China.
- Short reading passages from graded reader.

Unit IV Fluency & Cultural Immersion. **Credit 1**

- Chinese festivals and customs in depth.
- Role-plays: job interview, travel abroad, meeting friends.

- Media exposure: songs, news clips, short films with subtitles.
- Final project: 我的未来计划 / My Future Plans (oral + written, 250 characters minimum)

Essential/Recommended Readings/Texts:

1. Cheng, Tsui Company. (2017). *Integrated Chinese, Level 1 Part 1 & 2*. Boston: Cheng & Tsui.
2. Liu, X. (2010). *New practical Chinese reader* (Vols. 1–2). Beijing: Beijing Language and Culture University Press.
3. Ross, C., & Sheng Ma, J. (2014). *Modern Mandarin Chinese grammar: A practical guide* (2nd ed.). New York: Routledge.
4. Roy, S., et al. (2020). *Mandarin Chinese for beginners* [SWAYAM MOOC]. Ministry of Education, Government of India.
5. Wiedenhof, J. (2015). *A grammar of Mandarin*. Amsterdam: John Benjamins.
6. Zhao, J.-S. (2016). *Mandarin Chinese: A functional reference grammar*. New York: Oxford University Press.
7. Zhao, Y. (2013). *Mandarin Chinese characters made easy*. Beijing: Sinolingua Press.

Additional Readings:

1. Cheng, Tsui Company. (2017). *Integrated Chinese, Level 1 Part 1 & 2*. Boston: Cheng & Tsui.
2. Liu, X. (2010). *New practical Chinese reader* (Vols. 1–2). Beijing: Beijing Language and Culture University Press.
3. Ross, C., & Sheng Ma, J. (2014). *Modern Mandarin Chinese grammar: A practical guide* (2nd ed.). New York: Routledge.
4. Roy, S., et al. (2020). *Mandarin Chinese for beginners* [SWAYAM MOOC]. Ministry of Education, Government of India.
5. Wiedenhof, J. (2015). *A grammar of Mandarin*. Amsterdam: John Benjamins.
6. Zhao, J.-S. (2016). *Mandarin Chinese: A functional reference grammar*. New York: Oxford University Press.
7. Zhao, Y. (2013). *Mandarin Chinese characters made easy*. Beijing: Sinolingua Press.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Weekly Tone & Pronunciation Drills by creating audio recording submissions checked for tonal accuracy.
2. Character Writing Portfolio by writing 15–20 characters per week with stroke order and example sentences.
3. Listening Journals to write a summary of short Mandarin dialogues, news, or songs.
4. Role-Plays & Skits of everyday life situations graded on fluency and comprehension.
5. Short Writing Assignments of diary entries, simple essays and conversations in characters + Pinyin.
6. Final Project like an oral self-presentation and written report (200–250 characters).

Credits - 4
Hours - 60

AEC 9: Foreign Language for Communication II - French

Course Objectives:

1. To extend communicative skills in French to handle everyday interactions with confidence.
2. To introduce key grammatical structures for functional use (tenses, articles, simple sentence patterns).
3. To develop listening and reading comprehension skills using simple texts and dialogues.
4. To strengthen cultural understanding through exposure to French festivals, traditions and contemporary life.

Learning Outcomes:

After the completion of the course, the students will:

1. Engage in simple conversations on daily life, family, hobbies and travel.Use present tense verbs and construct sentences with articles, prepositions and basic connectors.
2. Express likes, dislikes, preferences and simple future plans.
3. Comprehend simple cultural texts and media in French.
4. Perform short oral and written tasks such as dialogues, descriptions and personal letters.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 9	Foreign Language for Communication II - French	04	0	0	04

Details of Course:

Unit I Expanding Vocabulary and Grammar. **Credit 1**

- Revision of être, avoir and introduction to regular verbs (-er, -ir, -re)
- Definite and indefinite articles, gender and number of nouns.
- Everyday vocabulary: family, home, food.

Unit II Daily Communication. **Credit 1**

- Asking for directions, shopping and ordering food.
- Talking about routines and preferences.
- Expressing time and dates.

Unit III Future Plans and Social Interaction. **Credit 1**

- Immediate future (futur proche: aller + infinitive)
- Talking about hobbies, leisure and trave.l
- Engaging in short conversations in role-play.

Unit IV Culture and Society. **Credit 1**

- French festivals and traditions (Bastille Day, Noël, etc.)
- Contemporary French lifestyle and etiquette.

- Reading short cultural texts and discussions.

Essential/Recommended Readings/Texts:

1. Capelle, G., & Menand, R. (2009). *Le Nouveau Taxi! 1: Méthode de français*. Paris: Hachette.
2. Girardet, J., & Pécheur, J. (2012). *Campus 1: Méthode de français*. Paris: Clé International.
3. Srivastava, D. (2020). *Parler de soi / Talking about oneself* [SWAYAM MOOC]. New Delhi: IGNOU–SWAYAM.
4. Srivastava, D. (2020). *Échanger / Interactions* [SWAYAM MOOC]. New Delhi: IGNOU–SWAYAM.

Additional Readings:

1. Appriou, D. (2012). *Alter Ego + A1*. Paris: Hachette.
2. BBC. (2010). *BBC Languages – French*. Retrieved September 2025, from http://www.bbc.co.uk/languages/french/
3. Grégoire, M., & Thiévenaz, O. (2010). *Grammaire progressive du français: Niveau débutant*. Paris: Clé International.
4. Delfosse, M.-J. (2013). *Vocabulaire progressif du français: Niveau débutant*. Paris: Clé International.
5. Centre National d'Enseignement à Distance. (2025). *Le Point du FLE*. Retrieved September 2025, from https://www.lepointdufle.net
6. Mauger, G. (1995). *Cours de langue et de civilisation françaises* (Vol. 1). Paris: Hachette.
7. Tricot, C. (2014). *French grammar in context*. London: Routledge.

Continuous Assessment:

The assessment should be based on any four of the following:

1. Oral Drills for improving regular pronunciation and dialogue practice in class.
2. Vocabulary Logs for students to maintain a personal vocabulary journal with meanings.
3. Listening Comprehension of short audio/video clips with exercises.
4. Role Play Assignments including greetings, self-introductions, asking for objects, making plans.
5. Short Cultural Presentation on French festivals or traditions compared to Indian ones.
6. Written Exercises of fill-in-the-blanks, sentence construction, short dialogues.

Credits - 4
Hours - 60

AEC 10: Foreign Language for Communication II - Russian

Course Objectives:

1. To deepen grammar and vocabulary knowledge for fluent communication.
2. To strengthen listening and speaking skills for real-world situations.
3. To enable students to write and understand short texts in Russian.
4. To introduce cultural and social aspects of Russia.

Learning Outcomes:

After the completion of the course, the students will:

1. Speak Russian fluently in everyday contexts.
2. Use verbs of motion, cases and aspects correctly in conversation.
3. Write short essays, letters and descriptions in Russian.
4. Understand spoken Russian at normal conversational speed.
5. Engage in role-plays simulating travel, study and social interactions.

Credit Framework:

Course Code	Course Title	Credit Distribution of the Course			Credits
		Lecture	Tutorial	Practical/ Practice	
AEC 10	Foreign Language for Communication II - Russian	04	0	0	04

Details of Course:

Unit I Building Fluency. **Credit 1**

- Review of sounds, grammar basics.
- Complex greetings, expressing wishes, making requests.
- Future tense and near future.
- Role-plays: buying, traveling, meeting friends.

Unit II Grammar in Action. **Credit 1**

- Declensions of nouns and adjectives (cases in speech and writing).
- Expressions of time, possession, negation in conversations.
- Comparative and superlative forms of adjectives.
- Listening drills: dialogues on daily life.

Unit III Advanced Sentence Construction. **Credit 1**

- Verbs of motion with prefixes.
- Aspects of verbs in narrative.
- Direct/indirect objects, instrumental case.
- Writing: short letters, diary entries and emails.

Unit IV Cultural and Interactive Communication. **Credit 1**

- Russian festivals, traditions and expressions.

- Complex sentences in spoken Russian.
- Oral presentations on personal experiences.
- Listening to authentic Russian media (songs, short clips).

Essential/Recommended Readings/Texts:

1. Bhaskar, S. (2021). *Russian language course material* [SWAYAM].
2. Brown, N. J. (1996). *The new Penguin Russian course: A complete course for beginners*. London: Penguin Books.
3. Golub, A. (2009). *The everything learning Russian book*. Avon: Adams Media.
4. Karavanova, O. (2016). *Sputnik: An introductory Russian language textbook*. Madison: Wisconsin University Press.
5. Sokolsky, A. (2012). *Russian in exercises*. Moscow: Russky Yazyk Publishers.
6. Wade, T. (2010). *A comprehensive Russian grammar* (3rd ed.). Malden, MA: Wiley-Blackwell.

Additional Readings:

1. BBC. (2010). *BBC Russian language resources*. http://www.bbc.co.uk/russian/learning *(Accessed September 2025)*
2. Brown, J. W. (2013). *Russian made simple: Learn to speak and understand Russian quickly and easily*. New York: Crown Publishing.
3. Duolingo. (2018). *Duolingo Russian course*. https://www.duolingo.com *(Accessed September 2025)*
4. Green, A. (2007). *Russian pronunciation and intonation*. Moscow: Russky Yazyk Publishers.
5. Kostromina, I. (2014). *Russian grammar in use*. Moscow: Red Square Press.
6. Offord, D. (1992). *Modern Russian: An advanced grammar course*. Cambridge: Cambridge University Press.
7. RussianForEveryone.com. (2015). *Russian for everyone*. http://www.russianforeveryone.com *(Accessed September 2025)*
8. RussianLessons.Net. (2024). *Learn Russian for free*. https://www.russianlessons.net

Continuous Assessment:

The assessment should be based on any four of the following:

1. Oral role-plays (shopping, travel, festivals).
2. Listening comprehension with authentic Russian audio.
3. Written assignments (short essays, letters).
4. Vocabulary and grammar quizzes.
5. Group presentations on Russian culture.
6. Oral proficiency test (fluency & comprehension).

परिसमाप्तिः

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